

MARINE RECORD

ESTABLISHED 1878.

VOL. XXIII, No. 35.

CLEVELAND---AUGUST 30, 1900---CHICAGO.

\$2.00 Per Year. 5c. Single Copy

LAKE CARRIERS' ASSOCIATION.

To consider and take action upon all general questions relating to the navigation and carrying business of the Great Lakes, to maintain necessary shipping offices and in general to protect the common interests of Lake Carriers, and improve the character of the service rendered to the public.

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THE PARIS MARITIME CONGRESS.

The International Maritime Congress at the Paris exhibition was opened on the 4th inst. under the presidency of M. Lanessan, French Minister of Marine, and in the presence of about two hundred delegates. M. Charles Roux, member of the Conseil Supérieur de la Marine Marchande, welcomed the foreign delegates and the other representatives of the shipping interests, and sketched out a plan for the proceedings. In the course of his speech he regretfully expressed his conviction that the French mercantile marine was in a state of decadence, principally because its development was made dependent on prescribed modes of ship-construction, and also because, in granting State aid to shipowners, the supreme importance to any country of a flourishing merchant navy was left entirely out of sight. M. Lanessan also spoke from the same point of view, and expressed his opinion that in order to rescue the French mercantile marine from its present unsatisfactory position the commercial harbors, the railway communications, and the inland waterway should be improved, and the tariffs reduced as much as possible. After this, on the motion of M. Roux, it was resolved to divide the labors of the Congress into five sections for the discussion of the following questions: (1) What are the different kinds of protection to be accorded to the mercantile marine? (2) What ought to be the organization of free ports and zones? and what influence have they upon the merchant navy? (3) What international measures should be taken for securing safe navigation? (4) The wages, composition and conveyance home of crews. (5) The organization of mutual sick benefit and insurance funds for seamen. The different sections met on the 6th, 7th 10th and 11th inst., and on the 12th two plenary sittings were held, and a banquet took place in the evening.

The proceedings of the third section were perhaps of the greatest international interest, and on the motion of the Director of French Lighthouses it was resolved to reiterate a string of recommendations made at the Maritime Conference in Washington in 1889, relating to the uniform classification of lights and light-dues in the books of various maritime nations. It was further recommended that the range of the lights should be reckoned according to uniform principles in the books of the different nations, the diversity at present existing giving rise to much confusion. Uniformity was likewise recommended in the buoyage system, and in the mode of taking maritime meteorological observations and of making storm-warning signals. A resolution proposed by a number of Marseilles shipmasters to make it compulsory to

use a common type of ships' lights, bells, whistles, sirens, and fog-horns, the same to be subject to the Government inspection, was rejected as was also another brought in by the Compania Trasatlantica, of Barcelona, to the effect that it should be made obligatory for vessel at anchor to use bell, for steamers to use the steam-whistle, and sailing-ships the siren. As regards the lights to be shown by vessels engaged in deep sea fishing, a resolution was passed in favor of international regulation. An interesting discussion arose on the subject of the exact definition of the term "moderate speed," and after several motions were made it was decided not to recommend the laying down of any fixed definition, but to leave the matter as it now stands. The question of the advisability of an international agreement respecting the introduction of a common load-line gave rise to a long discussion, which resulted in a recommendation that the question should be made the subject of experimental tests by the various countries for a number of years, and notes and opinions of shipmasters taken in connection with it.

UNITED STATES LEADS THE WORLD.

In a recent speech Senator Frye set forth these facts:

"Our wheat crop in 1898 was larger than that of any other nation—twenty-three per cent. of the world's crop. Our corn crop for the same year was ten times larger than that of any other nation—seventy-three per cent. of the world's crop. Our export of provisions was three times greater than that of any other nation. Our cotton crop was five times greater than that of any other nation—seventy-five per cent. of the world's production. Our coal production last year exceeded that of any other nation—thirty-one per cent. of the world's production. Our pig-iron production last year exceeded that of any other nation—thirty-three per cent. of the world's production. Our copper production was more than one half of that of the whole world. Our railroads were six times the length of those of any other nation. The United States will enter the new century as the leading world's producer in all the factors which enter into international commerce."

BRITISH COAL SUPPLY.

Because the General Manager of the Taff Vale Railway refuses to meet representatives of a labor union, not a pound of coal is moving at Cardiff, South Wales, and thirty thousand colliers are idle, says a cablegram to the Herald from London.

This railway is the main artery through which the great stream of Welsh steam coal flows down to Cardiff. The bulk of the steam coal used by the British navy and merchant marine is carried from the mines to the coast by the Taff Vale Railway. The strike on this railway, if not speedily terminated, must have a disastrous effect on shipping, and seriously embarrass the Admiralty, at a time when steam coal is a very precious article.

No better time could have been chosen by the labor union leaders to stop this great coal carrier. Welsh steam coal has already touched record prices, and the Admiralty only a few days ago was forced to pay an exorbitant price for 250,000 tons.

In an article on the effect in the United States of the coal supply situation in England, the Herald says: Railways, coal operators, steamship and sailboat lines and shipbuilders owners and brokers, are all making aggressive preparations for taking advantage of the situation. Evidences of these preparations are in the sending of special agents to Europe to ascertain the conditions of the prospective market, in the increased activity in building ships for the carrying of coal, in the extension of operations in the coal fields of the Virginias and Pennsylvania, and on combinations and agreements of different railway lines for the more economic handling of the traffic.

PETROLEUM INDUSTRY IN RUSSIA.

The St. Petersburg Messenger of Finance states that English capitalists have recently invested \$9,000,000 in the petroleum-producing territory between the Caspian and Black Seas.

Since 1892, when new regulations concerning the petroleum industry were published, more than 30 firms have received permits from the Minister of Agriculture and Crown Domains to engage in the petroleum industry in Russia, and applications are being made for permission to develop the territory on the Apsheron Peninsula, some 300 miles north of Baku, on the Caspian Sea.

This increased demand for fuel caused foreign capitalists to look carefully after the residues, which has resulted in a decrease in the amount of kerosene exported and a greater demand for petroleum fuel at good prices; this increased 900 per cent. during the past 6 years and is still growing, notwithstanding the competition of pit coal and wood. The demand for petroleum fuel from the factories in and about Moscow has more than doubled in six years and now amounts to millions of tons annually.

The consumption of liquid fuel on locomotives has increased tenfold in 9 years and on river steamboats fourfold in 11 years, while the consumption of coal increased 113 per cent. and of wood 58 per cent.

In order to meet the demand for liquid fuel, Baku must increase her output from 242,000,000 pounds to 360,000,000 pounds (3,903,226 tons to 5,806,451 tons), and, in order to supply the increasing demand from the interior of Russia, it will be necessary to increase the output of residues to 8,064,516 tons in the near future. This development will require a further investment of \$8,000,000, which must come from foreigners.

The slow development of the export of kerosene is due partly to the fact that Baku finds it more profitable to produce liquid fuel and partly to the competition of the Standard Oil Co., but, unless the export of Russian kerosene is increased, as the demand from the interior is small, the liquid fuel will contain too great a percentage of dangerous volatile products for profitable trade.

The increased production of kerosene is necessary to supply the fuel residues, and, while the same will meet strong opposition from the United States, success is only possible by Russia adopting the Standard Oil Co.'s. methods for saving, transporting and delivering the product, which will require a largely increased capital. It is estimated that the amount of \$10,000,000 will be required to successfully compete with the American oil in England alone.

A NOVEL type of marine engine has been lately applied by Messrs. Hawthorne, Leslie & Co. to the Chilean training boat, General Baguedano; it is designed to give the maximum effect when the boat is propelled at full speed, with greater economy and power than is possible with the ordinary type of marine engine. It is built in a single unit, one-half of which can be used at a time. The engine is triple expansion and has six cylinders acting each upon a crank of the main shaft. Two high-pressure cylinders, two intermediate and two low-pressure are thus placed in line, the two like cylinders have their cranks at an angle of 180° and the diameters thus formed divide the circumference into three equal parts, the cranks being found at 60° intervals around the shaft. The first high pressure cylinder discharges into the first intermediate and first low pressure cylinders, and the second set is arranged in the same manner; each of the low pressure cylinders has a separate condenser. In this way two triple expansion engines are obtained, and when it is desired to work at half the power it is only necessary to unbolt the crank heads of one set. This arrangement seems to work well in practice.



CHICAGO.

Special Correspondence to The Marine Record.

Grain freights were dull, but all boats on the market Monday, were placed without breaking the rates from $1\frac{1}{4}$ cents on corn and $1\frac{1}{4}$ cents on wheat.

The old light-house at Holland has been condemned by the United States Inspector, Capt. Warren, Corps of Engineers, U. S. A., and a new one will take its place.

Willis L. Moore, Chief of the United States Weather Bureau, is of the opinion that the opening of the Chicago drainage canal has had no effect upon the level of the lakes.

The steamer C. F. Bielman, which was swung across the river at the Fort Wayne railroad bridge, Thursday night, by the current, was released on Friday, after the current had been shut off about eight hours.

The steamyacht Catherine C has been sold by Michael Cudahy to Frederic Conde, of Oswego, N. Y., for \$10,000. The yacht will be taken immediately to Oswego and thence will go to the Thousand Islands on the St. Lawrence. The Catherine C was built at Detroit in 1893.

The damage done to the steamer Denver in her collision with the steamer Specular is found to be slight, after an inspection in dry dock. At Milwaukee, her port of destination, the testimony of the officers and crew have been taken for use in a possible suit by the owners of the Specular for damages.

The schooner Olga has been sold by William Johnson to W. H. Turner, of Beaumont, Tex., and T. J. Hooks, of Village Mills, Tex. She will leave Monday by way of the St. Lawrence river and Atlantic ocean for Galveston, the future port of call. The boat will be employed in the lumber trade from Mexico and Cuba to Galveston. She takes a cargo of corn from this port to Montreal on her way.

Capt. J. G. Warren, Corps of Engineers, U. S. A., of the government engineers' department, has completed his annual inspection of the Lake Michigan light-houses and is formulating his report. He says that none of the light towers must be rebuilt, but several pier head stations are rotten and must be replaced. Extensive repairs have been recommended for Racine and Holland, and a dozen other light-houses.

Grain cargo insurance rates will be advanced on September 1st. Since May 1st the tariff has been uniformly the same, the two cargo pools in Chicago have made this condition of things possible. The following table shows the old figures and also the new ones which go into effect the first of the month: To Port Huron, from 25 to 35 cents; to Buffalo 30 to 40 cents; to Kingston, 45 to 55 cents; to Montreal, 60 to 70 cents.

Chicago's stocks of corn have not been as low as at present, 2,020,000 bushels, since September 1, 1899, when they were 1,601,000 bushels. In January, 1896, they were down to 911,000 bushels. In December, 1895, they were 944,000 bushels. The smallest holdings were in March, 1891, when they were only 200,794 bushels. The largest stock in that year was in September, 3,877,938 bushels, and by December they had been reduced to 442,683 bushels.

After examining the planking and timbers of the steamer Cleveland, Capt. C. H. Westcott, supervising steamboat inspector for this district, decided that the local steamboat inspectors were all right when they declared the Cleveland unseaworthy. The Cleveland was recently given her annual inspection by local inspectors Richardson and Moore, who declared that she was unseaworthy and instructed the custom house officials to refuse the boat a clearance until she had received enough repairs to pass muster as a safe boat. William Mueller, the owner, appealed from their decision to Capt. Westcott.

Another contract for new tonnage was announced this week by the American Ship Building Co. The new vessel was ordered by Capt. C. W. Elphicke, of Chicago, and his associates. It will be a modern steamer 430 feet keel, 450 feet over all, 50 feet beam and $28\frac{1}{2}$ feet depth of hold. The engines will be quadruple expansion, with steam supplied by three Scotch type boilers. The boat will be built at the Chicago yard and will be out by the opening of navigation next spring. Last fall Capt. Elphicke sold out the four ships he was manager of at the top of the boom, and has since been working to reinvest at what he considered fair figures between himself and the builders.

President Mackay and other officers of the H. H. Williams Transportation Co. are in town consulting with the officials of the American Ship Building Co. relative to the construction of a steel passenger steamer to run between Chicago and South Haven next season. The new steamer to be built will be given a high speed in order to cut down the running time from one to two hours each way. The passenger traffic to South Haven has increased greatly the last couple of

years and there is a decided call for more boats on the run. Four steamers are now regularly in the service of the Williams company and the fruit shipments have been so heavy for two weeks that the steamer O. E. Parks has been chartered to make daily trips.

Report has it that the four steamers ordered from the American Ship Building Co. for the Northwestern Transportation Co., headed by Charles Counselman, the grain shipper, are intended for the nucleus of a grain line between Chicago and Liverpool. The boats are of the type best suited to the navigation of the St. Lawrence system of Canadian canals, and their machinery will be designed for salt water service. They are to be equipped with three gangways on each side and will have steel main decks. This brings them into the package freight class, and it is believed that they will bring back general cargo from Liverpool when returning to Chicago for more grain. In winter the boats can be used in the coasting trade.

A telegram was received on Monday at the office of the Great Lakes Towing Co., from General Manager Collier, at Cleveland, ordering Capt. Thomas Johnson to go to the wreck of the steamer Specular at once. He is to examine the boat with a view to making an estimate of the cost of raising her so that the Great Lakes Co. may make the underwriters a bid for the work. The Specular was sunk in the Pelee Passage last week by collision with the steamer Denver. Capt. Johnson is known as one of the best wrecking masters on the lakes. He was employed in this capacity by the Dunham Towing Co. for many years before it was absorbed by the trust. One of his latest jobs was raising the schooner Iron Cliff, which had been abandoned as a total loss after sinking outside of the harbor.

The steamer Ferdinand Schlesinger was attached by the city of Chicago on Tuesday for a claim of \$3,000, claimed to be due for damage done to North ave. bridge by that steamer last Sunday. The attachment was without notice, and without any demand upon the agents for payment. They were not aware of the claim until the attachment was served. They knew, however, that the Schlesinger had done some damage to the bridge, through the dirty water of the north branch stopping up the seacock. A survey showed that repairs could be made for \$300. "This action by the city is low down pettifogging that an ordinary shyster would not stoop to do," said Capt. D. Sullivan, agent of the steamer. "It was done in a premeditated way on a holiday to embarrass the owners. If we had been notified yesterday a good and sufficient bond would have been furnished, and the vessel would not have been delayed. Many things have arisen in the last ten years to divert tonnage from Chicago, but nothing so infernally mean has happened as this. The whole affair was planned to tie up the Schlesinger on an exorbitant claim without giving us a chance to furnish bond. I cannot understand the purpose of such work by the city of Chicago."

DULUTH-SUPERIOR.

Special Correspondence to The Marine Record.

The grain rate is firm at $1\frac{1}{4}$ cents, and the demand for tonnage is improved.

Brokers are now trying to advance the grain rate to 2c. Shippers are bidding $1\frac{1}{4}$ c. and an advance may come in a few days.

At a banquet given at Duluth last week to the visiting members of the Congressional Rivers and Harbors Committee President J. J. Hill, of the Great Northern railroad spoke of the magnitude of the iron mines of northern Minnesota, and made the statement that "the iron mines in this district have been instrumental in attracting more gold to this whole country than any other agency because it gave the United States the control of the iron and steel industry of the world." Continuing Mr. Hill said: "The great mines in this district turned the balance in our favor, and by giving us control has made a marvelous increase in the nation's wealth."

There will, after all that has been said, be less ore sent down the lakes the present month than in any season up to date. Many mines are drawing in, others have stopped stockpile shipments, while some have ceased operations completely, and storms on the Mesaba range have delayed work for days at several of the biggest properties. Still most of the larger mines are not seriously affected by a curtailment, except temporarily, the cessation of operations being, for the most part, at new and smaller mines. On the whole, it looks very much like a curtailment of lake shipping. However, there might be a lake shipping rush towards the close of navigation.

The shortage of the wheat crop may not be as serious for the head of the lakes roads and elevator companies as might be assumed. The elevator companies and the roads tributary to Duluth are not going to lie down and let anything in the shape of grain get away that may be won by fair competition. Chicago is not going to get the corn in Duluth territory this year without a struggle, and they will have to hustle to get it in strictly competitive territory. The time has gone by, and the elevator roads in Duluth territory have too much at stake to continue to allow Chicago to run off with business which might be diverted through this point as its most natural and desirable channel.

THE Italian bark Marinin, which sailed from Port Reading, N. J. August 18th for Genoa, took out 1,383 tons of bituminous coal, being one, if not the first shipment of coal to the Mediterranean from the vicinity of New York.

DETROIT.

Special Correspondence to The Marine Record.

The steamer Tacoma is to have her engines compounded at Detroit this winter.

Wrecking and salvage experts have been examining the sunken steamer Specular this week with a view to bidding on the job of floating her.

After being detained at Port Huron for several days, the steamer Inter-Ocean has given bonds and was released from the custody of the U. S. marshal.

In the Lake St. Clair twenty-foot channel government dredges have been set at work removing the bars and lumps formed by deep draught vessels churning up the soft bottom.

Webster Starling, of Columbus, S. C., a waiter on board the steamer City of Mackinac, fell into the water at Mackinac Island while trying to reach the steamer by jumping and was drowned.

While dragging for an anchor lost by the James Watt at the Lime Kilns, the tug Reliable recovered part of a wheel chain belonging to the old Northern Transit Line steamer Brooklyn, which blew up in 1874.

Submarine worker and wrecker, Capt. Quinn succeeded in raising the little steamer Myrtle M. Ross, which sunk some time ago at the Windsor coal dock. She will now go into dry dock for survey and final repairs.

Capt. McKay, of the City of Detroit, says three lights are imperatively needed at Point au Pelee. Thus far the Canadian government has paid no attention to the fact that the southeast shoal gas buoy is out of place, probably considering that as American tows or rafts have dragged it away, Americans can replace it.

The Eddy-Shaw steamer Howard L. Shaw will be launched at the Wyandotte shipyard the first week in September. It is expected that the new Detroit fire boat will be ready to slide into the water by the middle of next month. The report that the man for whom she will be named is to sail the Shaw steamer is untrue, as he is manager of the line. She will probably be commanded by Capt. John Burns, of the E. C. Pope of the fleet, though this is not certain. In any case, young Capt. Shaw is not nor needs not to sail any more, as he has wealth enough to stay ashore, and no one would sell a farm and go on the lakes for a living.

The raising of the Specular, sunk by the Denver to the westward of the Pelee Passage, will not be such a difficult job as several Detroit vessel owners predicted, according to Capt. Cyrus H. Sinclair, wrecking master for the Salvage Association of America. He had this to say: "I think that after 1,000 tons of the ore have been taken out and some patching done to the hole, pontoons can bring her high enough from the bottom to permit of towing her into shallow water, where another lift can be taken, or perhaps the one lift will be sufficient." Capt. Sinclair is one of those who think it well to wait until the Denver's master tells his story of the collision before condemning any one in particular for the action of that craft in leaving the Specular's crew to save themselves. "Christensen has had trouble with the Denver a couple of times, once this season, when she went on near Port Hope, Mich., but otherwise his record is good. There are two sides to nearly all stories."

While dragging for the cable chain lost off the steamer James Watt at the time of her collision with the steamer Maruba near the Lime Kilns a few weeks ago, the crew of the wrecking tug Reliable brought to the surface a section of wheel chain about 30 feet in length, and about 13 feet of an old boiler flue. The chain and the flue are supposed to have been a part of the old-time passenger steamer Brooklyn, of the old Northern Transit Line, which during the early 70's was operating a line of 27 passenger steamers of the then Welland canal size, between Ogdensburg and Chicago. The Brooklyn, which was rated as one of the finest of the fleet, founded in 1874 with the loss of several lives, by the explosion of her boilers, while near the Lime Kilns. The chain and boiler flue, which are supposed to have belonged to her, although resting on the bottom of the Detroit river for more than 25 years, are not badly rusted. One of the singular coincidences is that wrecking master John Quinn, by whom the crew of the Reliable is employed, was awarded the job of removing the wreck of the Brooklyn after she met with her disaster. The stern of the Brooklyn could not be found at the time and has never since been located. It is supposed to have been carried to some distant point by the explosion. The hull of the old steamer was dragged up on the head of Grassy Island, where it still lies. Capt. Quinn is one of the most faithful workers under water, but this old wreck kept him guessing for awhile.

John C. Shaw, of Detroit, of the admiralty firm of Shaw & Cady, who will represent the Denver in the suit which will probably ensue, went to Milwaukee last Saturday and obtained the deposition of Capt. Christensen and the other members of the Denver's crew. He also obtained a copy of the captain's report to the Cleveland local inspectors, in which district the collision occurred. In substance it is as follows: "At midnight of the 21st I gave charge of the steamer to the mate, and shortly after 2 o'clock in the morning I heard our steamer exchange passing signals of one blast with some steamer and heard the order 'hard-a-port.' I went on deck and saw a vessel crossing ahead of us; our vessel swung under her port wheel, but struck a glancing blow with her port bow on the port side of the other vessel, and glancing off the two vessels passed port to port. I at once stopped our engine to stay by the other vessel, which

I took to be a large steel barge. I also looked to see if we were leaking, but found our damage evidently slight. The vessel we had struck gave no signal by either engine or large whistle that we could hear, and appeared to continue on at full speed, as I could see her rear mast headlight. Soon after the collision other vessels passed close to us, and in the direction of this colliding vessel, which I could only conclude was practically uninjured and had gone on instead of standing by us. After waiting a considerable time we started ahead and I reported the collision to my owners by letter mailed at Detroit, but did not have any idea that the other vessel was much, if at all, injured until when passing Port Huron we were informed that the *Specular* had been sunk, and then I concluded that it was probably she that had been in collision with us. Our damages will amount to but little, and I think will be found to be confined to the upper works at the bluff of our port bow. I do not know about the damages to the other vessel, as she passed on so fast, but I presume it must have been the *Specular* we struck." Mr. Shaw reports Capt. Christenson as very much worried, not from fear of the outcome of any investigation, but because of what he terms the unwarranted attacks made upon him by various lake newspapers, which knew but one side of the case, and not very much even of that.

BUFFALO.

Special Correspondence to The Marine Record.

Mr. Russell, of the well-known firm of Russell & Watson, Main street, is away up the lakes on a vacation with his family, the entire cruise will last for a couple of weeks.

Messrs. James Ryan & Sons on Monday made out a bond of \$20,000 to secure the release of the steamer *Inter-Ocean*, which has been libeled for being concerned in the sinking of the schooner *Fontana*.

The fire-boat, building at the yards of Lewis Nixon, Elizabethport, N. J., will be ready to leave there next month. It is stated that she will be the largest and most powerful fire-boat ever built. She is to be equipped with every modern device.

The East Charity shoals in Lake Ontario, ten miles from Cape Vincent, and located near the Charity shoals, have just been surveyed under general instructions from the government. The East Charity shoals are near the Charity shoals, but have never been surveyed.

It is stated that the American Linseed Co. will put up a 2,000,000 bushel steel elevator on the site of the recently burned Eastern elevator. With a steel storage capacity for 2,000,000 bushels, the American company could largely eliminate the insurance charge on seed destined for its Buffalo and Staten Island plants.

Three managers of the Armour grain handling interest, at three principal points—George E. Marcy, of Chicago, A. K. Taylor of Milwaukee, and H. P. Mulhall of New York, were in Buffalo early in the week and after looking the ground over, decided upon the consolidation of all business in the grain line with which Mr. Armour is connected and putting it under one management, Mr. Waters being decided upon as the new agent.

Although the outlook is black for Capt. Peter Christenson of the steamer *Denver*, which sank the steamer *Specular* in Pelee Passage at night and then steamed away without trying to save her crew, yet good authorities advise the public to suspend judgment until his side of the case can be heard. The accident occurred in the ninth steamboat inspection district, of which Capt. James Stone of Cleveland is the supervising inspector, and he will undoubtedly order the usual investigation in a short time.

Shipments of coal by lake this week were slightly over 76,000 tons, only about 1,000 of which was bituminous. Chicago took 35,000 tons anthracite, Milwaukee 18,000 tons and Duluth-Superior half the latter amount, the remainder being scattered among the smaller ports. The Lakes Michigan and Superior rates held at 30 cents all week, Toledo, 25 cents; Manitowoc, 30 cents; Lake Linden, 35 cents; Port Arthur, 35 cents; Menominee, 35 cents; Marinette, 35 cents; Bay City, 40 cents; Depere, 35 cents; Sault, 30 cents, etc.

Just as the excursion steamer *Unique* was leaving Ogdensburg, on Monday, with a large excursion, her machinery gave out and repairs were hurriedly made and the steamer sent out. The trouble occurred again, however, and the passengers were not landed until several hours overdue. It is a wonder why the engines and boilers of this smart and well-built little craft won't work to perfection. Ultimately some one will take hold of her and make a big success in passenger travel, but, up to date, she seems to have got on the wrong side of her luck all the time.

"One feature of the combination in the coal trade is said to be a proposition to make New York the export shipping point for a large amount of the bituminous coal. For this purpose it is intimated that an extensive system of piers will be built on the water front property owned by the Central Railroad of New Jersey. It is pointed out that a fine route for this business would be the Baltimore & Ohio to Cherry Run, the Western Maryland thence to Shippensburg, the Philadelphia and Reading thence to Bound Brook and the Central Railroad of New Jersey to New York. Even if there is to be no change in the control of the Central Railroad of New Jersey, it seems reasonable to suppose that the recent large buying of the stock has been in connection with the coal trade."

CLEVELAND.

Special Correspondence to The Marine Record.

The barge *Maida*, which caused the blockade in St. Mary's river recently, will go into drydock at Lorain for repairs Thursday.

On account of Labor Day the D. & C. line will make a special rate across to Detroit on Saturday night, the tickets being good returning until Monday night.

Mr. Robert Wallace and family, also Mr. James Wallace, general manager of the American Ship Building Co., are due back this week from their European tour.

The steel steamer *Princeton*, 5,125 gross and 3,820 net tons, built at Lorain and hailing from this port, has been granted her official numbers this week, by the Bureau of Navigation.

The Chase Machine Co. have one of their new style of steam towing machines on exhibition at their shops, and will keep it in working order for several days. These machines are becoming quite popular.

I was grieved to learn that Mr. Robert Logan had been ordered home from his office by his medical adviser on Wednesday. There are few men better liked than Mr. Logan and he is wanted on deck again at the earliest possible moment.

The steel steamer Capt. Thomas Wilson, building for the Wilson Transit Co., will be launched at the yards of the Jenks Ship Building Co., at Port Huron, Thursday afternoon at 2 o'clock. The new boat will probably be christened by Mrs. Wilson. Capt. Robert Logan, from this city, will be in attendance at the launch.

Capt. George L. Riker died at 6 o'clock on Monday morning, at Fairport, from heart disease. He had been light-house keeper for twenty years. He went out as captain of Co. D, of the One Hundred and Fifth Ohio, and was wounded at Atlanta. He was mayor of Fairport eight years, justice of the peace six years and president of the board of education six years. He was seventy years old.

Among the firms chartered in West Virginia this week is the Lake Transit Co., the incorporators of which are A. C. Dustin, of East Cleveland, and H. H. McKeehan, W. C. Merrick, Ben. P. Ball, and August Von den Steinen, of Cleveland. The authorized capital of the company is \$300,000, and it is permitted to engage in a general steamship and transit business. The principal offices of the company will be located at Duluth, Minn.

Vesselmen of Cleveland have issued a note of warning to the longshoremen at this port, in an endeavor to prevent the establishment of a precedent as to the unloading of wet cargoes of ore. Earlier in the week the steamer *Simon J. Murphy* came into port with wet ore on board. It had been raining almost incessantly on Lake Superior for the last few weeks, and most of the ore that is loading at those ports is wet, or at least very damp all through.

The steamer *Paraguay* will be launched from the Lorain yards of the American Ship Building Co. at 11 o'clock Saturday morning. The steamer is building for A. B. Wolvin, manager of the International Steamship Co., and is 256 feet over all. The boat will be fitted for salt water service before she leaves the yards, and it is understood that she will be sent direct to the ocean with a cargo of wheat. The engines will be equipped with salt water condensers and the entire fittings of the vessel will be first class.

Capt. Edward Mooney and most of the members of the crew of the steamer *Specular*, which was sunk by the steamer *Denver* near Point Pelee, reached Cleveland all safe. Those of the crew on watch at the time of the collision, say that though the night was dark there was no excuse for the collision; that they could see the lights of the other craft a long distance off, and thought they had plenty of room to clear each other. There is, however, another side to the story, and the full facts should be brought to light, as they undoubtedly will be.

The new steel steamer Capt. Thos. Wilson will be launched from the yards of the Jenks Ship Building Co., Port Huron, on Thursday. Her general hull dimensions are 440 feet over all, 420 feet keel, 50 feet beam and 28 feet molded depth. Fitted with triple expansion engines and 3 Scotch type boilers. It is expected that Mrs. Capt. Thos. Wilson will christen the new craft in honor of her late husband, than whom there was no man better liked or respected in this city. All hands deplore his loss, but the new ship, will, in a measure, perpetuate his memory.

There was no change in the lake freight situation at the opening of this week, and the market is about as dull as it could be. The leading ore shippers are practically out of the lead for tonnage, and very little chartering was being done in that trade. The demand for lumber carriers is increasing steadily, and the freights are in better shape than at any time this season. Most of the regular lumber carriers are back in that trade, and there are not many vessels on the list for ore. Lake Michigan coal tonnage is in fair demand, and vessels for Milwaukee are not very plentiful. Shippers to Lake Superior ports are easy and offerings of tonnage are liberal. But, withal, chartering can not be considered either brisk or favorable, as there is a tendency to break down even fair living rates of freight. It is hoped that after this slump goes by freights will again come to a fair lucrative standpoint.

The change probable in the freight market is the prospect of different conditions surrounding the ore movement

growing out of the present strike on the docks in Cleveland. The ore rate from Marquette to Ohio ports was marked down another notch. A steamer was placed at 65 cents, which is the lowest figure that has been paid on ore from any port this season. Some of the shippers are having about all they can do in taking care of their contract tonnage, and very few wild cargoes are offered. No charters from Escanaba or ports at the head of Lake Superior have been reported for a week. Although considerable ore is going on dock, shipments to the furnaces are fair. The movement of coal is practically the same as it has been, no new features showing themselves and no change in rates. Grain is slightly different. There are rumors of advances in the Duluth rate, but as yet no charters have been made at better than 1 1/4 cents. The lumber movement is brisk, with no change in the going rates at \$1.50 from Lake Huron ports to Buffalo, \$1.62 1/2 from Lake Michigan ports and \$2 from the head of Lake Superior.

FLOTSAM, JETSAM AND LAGAN.

The International Navigation Co., of Brooklyn, was incorporated at Albany on Wednesday with a capital of \$200,000 to operate a line of steamers on Lakes Erie, Ontario and the Niagara river. The directors are Wm. P. Williams, Wm. C. Davidson, Gustave J. Wiederholt, Frank M. Meekes and Milton I. Williams.

The Maytham tug *Alpha* has been libeled by the Great Lakes Towing Co., for \$5,000 and released. Claim is made that the *Alpha* forced the tug *William D.* under the bows of a steamer off Ashtabula, thus causing her to be rolled over and sunk with the loss of one life. The suit promises to be one of great interest for the towing firms of the lakes.

The new French line steamer *Lorraine*, which arrived in New York, on the 19th inst., is the largest ship of that line, and is said to be the biggest ever built in France. That she is not as large as the *Oceanic* and the *Deutschland* is explained by the fact that the harbor of Havre will not permit of the entry of a vessel larger than the *Lorraine*. She is 580 feet long, and is expected to develop an average speed of 20 1/2 knots.

A sailor has turned up at East Tawas, Mich., who claims to be a member of a schooner which was lost on Saginaw Bay with a cargo of copper many years ago. He claims that he can locate the vessel in twenty-four hours, but refuses to divulge her name or the date of her loss. He has gone to Bay City with the hope of interesting parties there in his story. His idea is apparently to get some one to furnish the funds for salvaging the cargo and to share the results between them.

When the Lackawanna Green Bay line was started early in the season, and excursions were run between Buffalo and the Wisconsin City, the venture was looked upon as a losing experiment and General Passenger Agent Frank A. Gross was made the subject of considerable good natured railery. It has proved a success, however, and next season will see two more boats running in conjunction with the Empire State and Badger State. The company is now discussing the building of two large handsome steamers.

At a meeting of the shareholders of the Anchor Line (Henderson Bros.,) limited, held, in London last week, Mr. Richard Henderson, who presided, said that taking an average at the various home ports where they got their largest coal supplies the price was now from 30 to 40 per cent. higher than it was twelve months ago, and in consequence, whilst English and Scottish prices ruled so high, they were finding it more economical and advantageous to use native coal for their Indian steamers; and American coal for their Atlantic steamers.

Judge McPherson has handed down an opinion deciding the admiralty suit brought by the German steamship *Willkommen* against the British steamer *Aureole* and the cross-suit brought by the *Aureole* against the *Willkommen*. The two vessels came in collision off Marcus Hook, Jan. 13, 1898, and both were injured. The two suits were claims for damages for injuries to the steamships, each libellant alleging that the other was responsible for the accident. Judge McPherson holds that the *Aureole* was responsible for the accident, and directs that a decree be entered against it. He dismisses the libel against the *Willkommen*.

Among the orders recently booked by the Bethlehem Steel Co., are spare propeller-shafts for the steamers *Ponce* and *San Juan* of the New York and Porto Rico line, which are being furnished to Harlan & Hollingsworth Co., of Wilmington, Del. The Bethlehem Co., are supplying eight forged hollow shafts of fluid-compressed, open hearth steel for use in Cuban sugar mills, and, in addition to these, they are making a large number of gun barrels for the Winchester Repeating Arms Co., and Colt Patent Fire Arms Co. These latter forgings are to be made of Bethlehem Nickel-Steel, which is peculiarly adapted to the purpose on account of its ability to withstand severe strains.

Looking at marine names one cannot but notice the wide variety of origin. "Navy" for instance is derived from the Latin, but "ship" is Dutch, while "vessel" is French and so is "boat." "Sloop" is Dutch but "brig" (from brigantine) is Italian. "Schooner" on the other hand is German, while "steamer" is Saxon. "Mast" also is Saxon, but "sail" is Danish. So also in the building of a ship, "bow" is Swedish, "stern" is Saxon and "deck" is German, while "keel" is Dutch. On the other hand, "rope" is Irish, "cable" is French, "spar" is Dutch, while "anchor" is Greek. Paul, for instance, in the description of his shipwreck, says "they cast four angkuras out of the stern" and this is the most ancient of all naval terms.—Ex.

TRIPLE SCREWS FOR WAR SHIPS.

Rear Admiral Melville contributes to the London Engineer for August an article on the "Machinery for the United States Navy Armored Cruisers." Commenting upon his article our contemporary says: The engines of fighting ships have to give the ships all sorts of speeds, from the highest to the lowest and the best that can be done is to effect a compromise. The engines are designed to give the best results at some moderate cruising speed. For lower speeds they are too large; for higher speeds they are too small; and the further we depart from the best speed the worse are the results. For this reason it is, as we have already pointed out, most unfair to compare the performance of a fighting ship with that of an Atlantic liner. The fighting ship could only compete in economy with the liner if she was invariably run at one speed. In the case of the liner, her most economical speed is also the fastest speed. If it is not, then her engines are too small. We may safely say that they are never too large. The engines of the warship do not work to the best advantage at full power. It will be seen that in the case of the fighting ship, the designer has to consider with much care what is the best compromise he can effect. In order to save coal at cruising speed he might so proportion her engines that they could not be kept running for many hours at the highest speed for lack of fuel; and, on the other hand, they may be so wasteful at low power, that on paper their performance may appear intolerably bad. But, on the whole, it seems that it is better to err on the side of wasting steam at low powers rather than high. For let us suppose that the engine requires 3 lb. per horse-power per hour at 5,000 indicated horse-power, and $2\frac{1}{2}$ lb. at 10,000 indicated horse-power. Here the loss is 2,500 lb. per hour at the lower power. If, on the contrary, the position were reversed, then the loss at the high power would be 5,000 lb. per hour, or twice as great. But, again, it must not be forgotten that on a long cruise it might be better to save coal at the low than the high powers—because consumption is not then measured by hours but by the distance run, while in actual warfare the conditions would be often, if not always reversed.

Various ways out of the difficulty have been suggested. One is to provide two sets of engines for each screw and to disconnect the forward set when cruising. Another is to shut off the low-pressure cylinder and work the high and intermediate cylinders compound. Another is to shut off the high-pressure and use the intermediate and low-pressure cylinder as a compound engine. Another is to lower the boiler pressure, and still keeping the three cylinders in use alter the cut-off, so that the high-pressure cylinder has something like a 90 per cent. admission. All these plans have their advocates. To all considerable objections may be urged. Admiral Melville, it will be seen, favors the use of triple screws. His opinion carries great weight. He has stated his case very fairly and fully; and it will be remembered that when a paper on triple screws was read before the Institution of Naval Architects by Mr. Norton, U. S. N., last year, the criticism was half-hearted. In a private letter which we have seen from Admiral Melville, the following words occur: "We have had but two triple-screw ships built for our service. The sailor-man does not take kindly to them, and the strongest argument that I have heard made by one of our best captains of the line was that he felt badly enough with his ship in hand with two screws without having three screws in his head to take care of, which argument, to my mind, is absolutely no objection at all, as it would only be necessary to have the central screw continually going ahead and manœuvre his ship with the two wing screws; or, on the other hand, stop his center screw and manœuvre with his twin screw, either in action or out of action.

As a sample of the danger that exists owing to the pivoted tongues of half tipsy seamen, an instance may be quoted which led to no stigma being attached to anyone concerned except the fellow possessed of a little wit but a long tongue. As the hands were being paid off before a mercantile marine superintendent, that official asked the men if they had anything to say about the measures that were taken to save the life of a passenger who had jumped overboard and was lost, and if, in their opinion, all was done by the captain of the ship that could be done under the circumstances. One drowsy Jack mumbled a negative reply to the query, and after repeating this twice or three times, and being challenged for an explanation of what he considered might have been done, blurted out, "the 'old man' should have jumped after him!"—Liverpool Journal of Commerce.

POWER FROM THE WAVES AND TIDES.

With visions of exhausted coal supplies, even though the end be far off, come thoughts of power from sources other than coal, from wind and water, and from the restless ocean waves and tides. Of water-power there are a goodly number of important installations, principally in the United States, where electric power distribution from them over comparatively long distances has reached a high state of development. In Great Britain, on the other hand, power from waterfalls is a scarce commodity and not much is to be hoped for in this direction, so that there is something of interest in a recent forecast of the country, with every hill or other point of vantage studded with huge windmills for generating electricity, to be subsequently distributed to manufacturing centres. Many years, however, would have to elapse before coal would become sufficiently dear to make such a scheme worth considering in a practical way. Wave motors and tide-power schemes have been almost endless in number. The former have, in a few instances, been used for light pumping work at seaside places, but such pumping outfits have been very far from demonstrating that the wave motor could ever be seriously considered as a prime mover where large powers were demanded; in fact, the wave motor is little better than a toy. As to power from the tides, there is little to be said, except that much money has been wasted in vain endeavors to turn it to practical account. The tide-power scheme probably always will be alluring and also disappointing. The disappointment comes from the fact that very few people seem to take the trouble to figure out how much water and how considerable a fall are required to give any useful amount of power. A horse power for a day of ten hours, for example, would require something like 120 tons of water falling from a height of 100 feet, so that a 500 H. P. factory, say, would need 60,000 tons of water at a 100-foot head. On the basis of 36 cubic feet of water to a ton, there would thus be over 2,000,000 cubic feet of water, and this would make a fair-sized pond, say, about 1,000 feet long, 200 feet wide, and ten feet deep. There is in these few figures something that may help to open the eyes of the tide-power plan inventor and of those who are in the habit of putting money into such things.—Cassier's Magazine for September.

BROKERS COMMISSION.

After sessions covering three months or more, a special committee, composed of brokers, grain receivers and exporters—all members of the New York Produce Exchange—have agreed upon a basis of trading to enforce minimum rates of commission and brokerage for cash and c. i. f. grain. It is agreed that when on September 5 the grain trade of the port officially meets to consider the agreement there will be no doubt of the ratification. The agreement chiefly provides that for the sale of consigned grain one-half cent per bushel shall be charged on wheat, corn, oats and feed barley. One cent per bushel shall be charged on buckwheat, rye and malting barley.

It is provided also that where the consignment is handled for the account of any member or firm, one of whose general partners is a member, or corporation, one of whose executive officers is a member of this or one of the following regularly organized grain exchanges: Board of Trade, Chicago; Merchants' Exchange, St. Louis; Board of Trade, Duluth; Chamber of Commerce, Milwaukee; Chamber of Commerce, Minneapolis; Board of Trade, Kansas City; Chamber of Commerce, Cincinnati; Board of Trade, Detroit; Board of Trade, Peoria; Board of Trade, Indianapolis; Produce Exchange, Toledo; Chamber of Commerce, Cleveland; Merchants' Exchange, Buffalo; Chamber of Commerce, Boston; Commercial Exchange, Philadelphia; Chamber of Commerce, Baltimore; Board of Trade, New Orleans; Chamber of Commerce, San Francisco; Board of Trade, Montreal; Board of Trade, Toronto; Grain Exchange, Winnipeg, one-half of the above rates of commission shall be charged.

THE Providence Engineering Works, Providence, R. I., builders of the Rice & Sargent engine, have just completed a contract for two 750 horse-power engines for the New York Ship Building Co., of Camden, N. J., and the engines have been installed in the power plant of the new ship yard of that company. The power plant consists of two 500 kw. mono-cyclic generators, which are directly connected to the engines in question. The engines are to run at a speed of 120 revolutions per minute, which is considered a necessity in the new feature of the almost exclusive use of electricity as a medium of power transmission.

NOTES.

A RETURN has been issued by the British Board of Trade showing the progress of British merchant shipping as compared with that of other countries. The tonnage of British sailing and steam vessels entered and cleared, with cargoes and in ballast, at ports in the United Kingdom has risen from 13,915,000 tons in 1860 to 65,649,000 tons in 1899. In this category Norwegian tonnage is now second, having risen from 1,457,000 to 7,443,000. American tonnage has declined from 2,982,000 in 1860 to 570,000 in 1899, while German has risen from 2,314,000 to 5,238,000.

WE learn from the Bethlehem Steel Co., South Bethlehem, Pa., that among the orders recently booked are spare propeller shafts for the steamers Ponce and San Juan, of the New York & Porto Rico line, which are being furnished to Harlan & Hollingsworth Co., of Wilmington, Del. They are also supplying eight forged hollow shafts of fluid compressed open hearth steel for use in Cuban sugar mills, and, in addition to these are making a large number of gun barrels for the Winchester Repeating Arms Co., and Colt's Patent Fire Arms Co. These latter forgings are to be made of Bethlehem nickel steel, which is peculiarly adapted to the purpose on account of its ability to withstand severe strains.

EVERY steam engine and every regimen of steam has its own peculiar temperature of feed water which gives the maximum economy of fuel, and which can only be experimentally ascertained. No experiments have been made to determine, in given different cases, this temperature. Probably it admits of wide variation without affecting the fuel economy, the gains sensibly equilibrating the resulting losses. The higher the feed-water temperature, the less tube surface is required in the condenser; but, then, the higher the feed-water temperature, the larger must be the capacity of the cylinder for developing equal powers, other things equal, owing to the increased back pressure against the piston with higher temperature of the condenser. The higher temperature of the feed-water increases the economic vaporisation by the boiler in a higher degree than is due, numerically, to the increased temperature of that water, because the heating surface of the boiler having, in equal time, to transmit less heat, will, necessarily, utilize more of the heat in the gases of combustion than it would do with feed-water of lower temperature. Further, with the same engine, for the production of a given power with equal reciprocating speed of piston, the boiler pressure must be carried higher, the higher the back pressure against the piston, and there is a distinct and measurable economic gain due to the greater dynamic effect of a given weight of steam of higher pressure over the same weight of steam of lower pressure, after allowing for the greater total heat of the former.—Chief Engineer B. F. Isherwood in Cassier's Magazine for September.

THE total number of vessels entered at British ports in 1899 was 326,143, of a tonnage of 86,814,570, compared with 327,377 vessels of 85,132,533 tons in the previous year. Of these boats 85,669 were driven by steam, and 240,474 by sails, as against 91,547 and 235,830 respectively in 1898. Of foreign vessels, 10,508 sailing ships and 23,170 steamers entered British ports in 1899, the grand total of entries being 359,821 vessels of 105,188,504 tons. A considerable increase was manifest in shipbuilding, the total output in the United Kingdom (exclusive of vessels built for the royal navy and foreigners) being 1,245 vessels, with a tonnage of 749,414. In 1898 the figures were 1,370 vessels and 695,997 tons. The total tonnage, British and foreign, cleared at our ports in 1898, the latest year for which these figures are completed, is given in the report at 90,963,966 tons. In Russia the total clearances amounted to 17,471,914 tons, in Sweden to 15,373,091, in Holland to 17,325,827, in Germany to 27,536,990, in France to 33,563,852, in Portugal to 17,904,563, and in Italy to 36,622,635 tons, respectively. For that same year the proportion of British tonnage to the total tonnage clearances in the United Kingdom is given at 70.6 per cent., to the clearances in Sweden at 12.3, in Holland at 47.5, in Germany at 32.4, in France at 46.6, in Portugal at 53.4, and in Italy at 26.3. In 1890 the tonnage employed in the trade between the United Kingdom and the United States amounted to 8,894,715 tons apportioned. British tonnage is returned at 7,884,791, United States tonnage at 246,759, and other countries at 763,166 tons. Last year the respective tonnages were 10,038,935 tons, 542,179 tons and 875,559 tons, making a total of 11,456,673 tons. Last year 3,607 vessels of an aggregate tonnage of 13,815,992 tons passed through the Suez canal, of which 2,310 vessels of 9,046,031 tons were British, as against 3,389 vessels and 9,749,129 tons in 1890, when 2,522 vessels of 7,438,682 tons were British.

SHIP'S EQUIPMENT.

SHIP'S EQUIPMENT—REFRIGERATING PLANT.—It is doubtful whether a refrigerating plant can properly be deemed part of a ship's "equipment" when it is not shown to be the property of the owners of the vessel.

TRANSFER OF EQUIPMENT IN PORT.—Section 17, act of March 3, 1897, must be confined to vessels of the same owner, detained in a port of the United States.

There seems to be no provision of law admitting to free entry articles of ship's equipment, imported for a foreign-built vessel, sailing under a foreign register.

BEFORE THE U. S. GENERAL APPRAISERS AT NEW YORK,
AUGUST 20, 1900.

In the matter of the protest, 65050-2476, of Swift Beef Company, Limited, against the decision of the Collector of Customs, at New York, N. Y., as to the rate and amount of duties chargeable on certain merchandise imported per Campania and entered October 30, 1899.

OPINION BY SOMERVILLE, GENERAL APPRAISER.

The facts in the case are not numerous, and may be briefly stated as follows: The Swift Beef Company is engaged in the business of shipping refrigerated beef from the United States to England, which operations require a special refrigerating apparatus in the transporting steamer. The Swift Company entered into an agreement with the owners of the steamer Marquette of the Atlantic Transport Line for the right to fill certain space on the steamer for a number of voyages, and thus ship their refrigerated beef from New York to England. In the latter part of October, 1899, the Marquette was in London and the Swift Company made an effort to install a refrigerating plant in her. Before this was fully accomplished the Marquette left London—some days before her regular time. As the Swift Company was desirous of having the plant ready for use within the Marquette before her return voyage from New York to England, they dispatched such portion of the plant as had not been placed in her (which is the merchandise now under consideration) by the Cunard liner Campania, which, being a faster vessel than the Marquette, reached New York before her.

Upon the arrival of the Campania, the importers, the Swift Beef Company, desired to have the goods transferred to the Marquette under bond or under government supervision, without payment of duty; but this request was denied by the collector. Rather than suffer a delay, with the probability of losing their opportunity to install the apparatus in the Marquette before her departure for England, the importers made a consumption entry and paid duty on the goods as imported merchandise, filing in due time, however, a protest against the payment of any duty, in the form and manner set out above.

The questions arising upon the issue are, (first) whether the merchandise in question can rightly be deemed the "equipment" of a vessel, and (second) if so, whether the law has provided for the free entry of such "equipment" under the circumstances of this case.

The term "equipment" is of a general and somewhat vague signification, being defined in the Standard Dictionary (p. 619) as "whatever constitutes an outfit or preparation for some special purpose." It appears repeatedly in acts of Congress dealing with vessels and shipping.

A careful examination of these statutes discloses the fact that the word is often used by Congress in sharp distinction from "machinery" and "supplies," and the practice of the Treasury and Navy Departments for fifteen years renders it more than doubtful whether a refrigerating plant could properly be reckoned as the "equipment" or "legitimate equipment" (act of March 3, 1897) of a vessel (T. D. 6457, 6458, 7199, 7289, 12764), especially in view of the fact that such plant was not the property of the vessel or her owners, but of a beef company, which, so far as the evidence shows, had not even leased the plant to the steamship company. This fact of the absence of any lease distinguishes the present case from that of Kennedy v. United States (95 Fed. Rep., 127), cited by the importers' counsel, where certain bags leased to a steamship company were spoken of as part of "the equipment of the ship."

We are satisfied, however, upon other grounds, that the importers' contention cannot be sustained. Their counsel maintain that it is unnecessary to cite any special statute, but claim, nevertheless, that section 17 of the act of March 3, 1897, (29 Stat. L., p. 691) is applicable. It reads as follows:

SEC. 17. That section twenty-seven hundred and ninety-seven of the Revised Statutes be, and is hereby, amended by adding thereto the following words:

"See stores and the legitimate equipment of vessels belonging to regular lines plying between foreign ports and the United States delayed in port for any cause may be transferred in such port of the United States under the supervision of the customs officers from one vessel to another vessel of the same owner without payment of duties, but duties must be paid on such stores or equipments landed for consumption, except American products."

This statute cannot avail them. The Marquette belongs to the Atlantic Transport Line, while the Campania (the importing vessel) is a Cunard steamer. They were not, therefore, vessels "of the same owner," and were not delayed in a port of the United States.

Turning now to other provisions of law as to ships' equipment, we find them to be quite minute and elaborate, and to run as follows (Secs. 12, 13 and 14 of the tariff act of 1897; 30 Stat. L., p. 207):

Sec. 12. That all materials of foreign production which may be necessary for the construction of vessels built in the United States for foreign account and ownership, or for the

purpose of being employed in the foreign trade, including the trade between the Atlantic and Pacific ports of the United States, and all such materials necessary for the building of their machinery, and all articles necessary for their outfit and equipment, may be imported in bond under such regulations as the Secretary of the Treasury may prescribe; and upon proof that such materials have been used for such purpose no duties shall be paid thereon. But vessels receiving the benefit of this section shall not be allowed to engage in the coastwise trade of the United States more than two months in any one year, except upon the payment to the United States of the duties of which rebate is herein allowed: Provided, That vessels built in the United States for foreign account and ownership shall not be allowed to engage in the coastwise trade of the United States.

Sec. 13. That all articles of foreign production needed for the repair of American vessels engaged in foreign trade, including the trade between the Atlantic and Pacific ports of the United States, may be withdrawn from bonded warehouses free of duty, under such regulations as the Secretary of the Treasury may prescribe.

Sec. 14. That the sixteenth section of an act entitled, "An Act to remove certain burdens on the American merchant marine and encourage the American foreign carrying trade, and for other purposes," approved June twenty-sixth, eighteen hundred and eighty-four, be amended so as to read as follows:

"Sec. 16. That all articles of foreign or domestic production needed and actually withdrawn from bonded warehouses and bonded manufacturing warehouses for supplies (not including equipment) of vessels of the United States engaged in foreign trade, or in trade between the Atlantic and Pacific ports of the United States, may be so withdrawn from said bonded warehouses, free of duty or of internal-revenue tax, as the case may be, under such regulations as the Secretary of the Treasury may prescribe; but no such articles shall be landed at any port of the United States."

These qualified and carefully guarded privileges accorded by Congress to certain classes of vessels, built in designated places, and engaged in specified lines of trade, are strong indications that Congress meant to limit the right of obtaining foreign-made equipment free of duty to such vessels, and such only are enumerated in the statutes in question. All others are necessarily excluded under well-settled rules of construction. Unless, therefore, the Marquette can be brought within one of the favored classes, the importers' case falls to the ground.

No evidence was introduced as to the nationality of the Marquette, although it was the duty of the importers to show this, if desiring to obtain the benefits of the statutes in question. The Board is officially advised, however, by the naval officer of the port of New York in a supplemental report that, from public documents on file in his office, it appears that the Marquette was built at Glasgow, Scotland, sails under a British register, and is declared to be "a bona fide British vessel."

This being so, it is obvious that she can take advantage of any of the provisions of law above mentioned. Section 12 refers only to "vessels built in the United States for foreign account and ownership," while sections 13 and 14 are expressly limited to "American vessels" or "vessels of the United States." It is noteworthy, too, that the last-named section expressly excludes from its list of exempted articles "equipment," even when intended for vessels of the United States.

In conclusion we would add that the practice of the Treasury Department for thirty years has been to assess duty on rudders, sternposts, propeller shafts, etc., when brought over to be placed in vessels lying at our ports, and not intended for sale. (T. D. 657, 9962, 579, 11659, 9135, 9658, 11692. Note particularly opinion of Acting Atty. Gen. Taft, Opns. of A. G., vol. 20, p. 194.) The case of the Kaiser Wilhelm (T. D. 20748), indeed, appears to be the single exception to this course of action. But in that instance, as in all the others, the goods in question belonged to the owners of the ship for which they were intended. We have been referred to no cases where merchandise has been admitted free as "ship's equipment," when not belonging in fact to the owners of the vessels, either absolutely or under lease.

The protest is overruled and the decision of the collector affirmed.

CLASSIFICATION OF VESSELS

A vessel with engine of sufficient power and necessary machinery to propel her, though rigged as a sail vessel, should be returned on abstract of steam vessels.

TREASURY DEP'T, BUREAU OF NAVIGATION, }
WASHINGTON, D. C., August 21, 1900. }

SIR: Referring to your letter dated the 16th instant, in which you state that there has been constructed at your port a small vessel having foresail, mainsail, staysail and a small auxiliary gas engine, and request instructions as to the proper classification, I have to inform you that a vessel with engine of sufficient power and with the necessary machinery to propel her should be described as a steam vessel and returned on the abstract of steam vessels.

Respectfully, E. T. CHAMBERLAIN, Commissioner.
COLLECTOR OF CUSTOMS, Cleveland, Ohio.

THE New York Shipbuilding Company has already secured two contracts to build two steamers, one for the Hawaiian American Steamship Company and one for service between San Francisco and Alaska. The former will be of 11,000 tons and be used for both passenger and freight service.

SHIPPING AND MARINE JUDICIAL DECISIONS.

(COLLABORATED SPECIALLY FOR THE MARINE RECORD.)

Collision—Tow and Anchored Steamer.—Evidence considered, and held to show that a collision between a tow and a steamer at anchor was due to the fault of the tug in failing to allow for the length of her tow and the effect of the tide in changing her course after passing the steamer. The Langford and The William E. Ferguson, 102 Fed. Rep. (U. S.) 699.

Collision—Liability—Effect of Failure to Keep Proper Lookout.—A tug cannot be held liable to contribute to the damages caused by a collision in which her tow was injured, because of her failure to keep a proper lookout, where she was not otherwise in fault, and from the facts shown it appears that the omission in no manner contributed to the collision. The Elk et al., 102 Fed. Rep. (U. S.) 697.

Marine Insurance—Different Voyage.—Where, after the expiration of a marine policy, insurance was continued under its terms, by agreement, covering another and more extensive voyage, the acceptance of the risk under such agreement constituted a new and distinct contract of insurance, though no new policy was issued. Leftwich vs. Royal Insurance Co. of Liverpool, 46 At. Rep. (Md.) 1010.

Shipping—Lease of Barge—Loss by Negligence.—The barge Laura Lee was in good condition, sound, and seaworthy when chartered by defendant for service in connection with the removal of garbage. While in the possession and service of defendants she was lost. It is found that the immediate and direct cause of the loss was the unskillful, faulty, negligent way in which the barge was loaded, causing her to be twisted out of shape, to spring leaks, and to sink; and for her value defendant is held liable. Interstate Transp. Co. vs. City of New Orleans et al., 28 So. Rep. (La.) 310.

Collision—Vessel Drifting from Anchorage.—The schooner yacht Comet, 62 tons and length 80 feet, was anchored in her usual grounds during a night in summer, when a sudden and severe squall came up, the wind blowing for 15 minutes at from 40 to 60 miles an hour. Six men were on board below, and at once came up and dropped a second anchor, the two weighing 400 to 600 pounds, respectively. The anchors dragged for a distance, and then held, but subsequently again dragged, and the vessel drifted against a pier, and in doing so injured another yacht, which had just previously drifted to the pier and had been made fast. Held, that the injury was due to a peril of the sea, and not to any failure in the use of reasonable nautical skill, or to insufficient anchors or the selection of improper anchorage grounds, using the same anchors, for 20 years previously, without mishap; nor could she be charged with fault, under the circumstances, in failing to keep an anchor watch, which was not customary on such vessels, and would not have changed the result. The Comet, 102 Fed. Rep. (U. S.) 702.

VISIBLE SUPPLY OF GRAIN.

As compiled for THE MARINE RECORD, by George F. Stone, Secretary Chicago Board of Trade.

CITIES WHERE STORED.	WHEAT. Bushels.	CORN. Bushels.	OATS. Bushels.	RYE. Bushels.	BARLEY. Bushels.
Buffalo	2,061,000	472,000	95,000	.....	26,000
Chicago	11,401,000	785,000	2,193,000	371,000	17,000
Detroit	262,000	92,000	54,000	59,000	3,000
Duluth	7,222,000	421,000	51,000	38,000	95,000
Fort William, Ont.	1,161,000	.....	.....	.....	.....
Milwaukee	816,000	49,000	127,000	3,000	5,000
Port Arthur, Ont.	79,000	.....	.....	.....	.....
Toledo	1,050,000	862,000	1,199,000	29,000	6,000
Toronto	14,000	.....	3,000	.....	.....
On Canals	17,000	559,000	72,000	.....	.....
On Lakes	1,236,000	591,000	1,115,000	6,000	115,000
On Miss. River	.....	.....	.....	.....	.....
Grand Total	49,966,000	7,430,000	8,668,000	734,000	517,000
Corresponding Date, 1899	34,690,000	6,959,000	4,837,000	536,000	334,000
Increase	205,000	.....	1,044,000	53,000	128,000
Decrease	.....	1,672,000	.....	.....	.....

While the stock of grain at lake ports only is here given, the total shows the figures for the entire country except the Pacific Slope.

VESSELS CLASSED.

Vessels classed and rated this week by the American Bureau of Shipping, in the "Record of American and Foreign Shipping," New York:

Screw Acapulco, screw Sue H. Elmore, 6-masted schooner George W. Wells, and British schooner St. Anne de Beaumont.

It is quite possible that Chicago may become the center of shipbuilding in the United States. This week we learn that a contract for four steel steamers, to ply in the Atlantic coasting trade, was given the American Ship Building Co., by a syndicate of eastern capitalists. The steamers will be built during the winter at the yards of the company at South Chicago and will be ready for delivery to their owners on salt water with the opening of navigation next spring. The yards of the Chicago Ship Building Co. are included in the amalgamation of lake shipyards known as the American Ship Building Co. and, from present indications, there will be no lack of work next winter at any of their plants.



ESTABLISHED 1878.

Published Every Thursday by

THE MARINE RECORD PUBLISHING CO.,
Incorporated.C. E. RUSKIN, Manager.
CAPT. JOHN SWAINSON, Editor.CLEVELAND, - - - - -
Western Reserve Building. CHICAGO,
Royal Insurance Building.

SUBSCRIPTION.

One Copy, one year, postage paid, \$2.00
One Copy, one year, to foreign countries, \$3.00
Invariably in advance.

ADVERTISING.

Rates given on application.

All communications should be addressed to the Cleveland office,
THE MARINE RECORD PUBLISHING CO.,
Western Reserve Building, Cleveland, O.

Entered at Cleveland Postoffice as second-class mail matter.

No attention is paid to anonymous communications, but the wishes
of contributors as to the use of their names will be scrupulously
regarded.

CLEVELAND, O., AUGUST 30, 1900.

THAT CONGRESSIONAL TRIP.

The immense commerce of the Great Lakes was a revelation to the Southern members of the committee, who did not hesitate to voice their surprise and admiration. These gentlemen, of course, were familiar with the figures, but columns of figures, they said, "convey no adequate idea of the size and number of steam vessels and the greatness of the waterway, which are required to move the grain, the flour, and the lumber, running into millions of bushels, barrels and feet, and the enormous piles of coal, and especially of iron ore, which are everywhere in sight."

Mr. Bankhead, of Alabama, one of the leading Southern members, said: "It is impossible for us of the South fully to appreciate such conditions unless we see them. If I were to tell my people at once all I had seen, they would think I was lying. I doubt if the people of the North, who have not seen this great waterway, have any conception of the vastness of its commerce."

The committee were greatly pleased with Buffalo, and at the end of the trip, after all had been seen, remained of the opinion that Buffalo was Queen of the Lakes, having the busiest harbor and the most beautiful residence district. It was agreed that at the coming session of Congress \$250,000 should be appropriated for Niagara river, and whatever sums were needed to dredge Tonawanda harbor.

The members of the Rivers and Harbors Committee presented to Mr. C. H. Keep, of this city, a beautiful loving cup, as a token of their appreciation of his services. Mr. Keep is secretary of the Lake Carriers' Association, and upon him fell the burden of the labor of arranging for the trip and personally conducting the Congressional party.

LAKE LEVELS.

Willis Moore, chief of the United States Weather Bureau, is of the opinion that the opening of the Chicago drainage canal has had no effect upon the level of the lakes. That view was expressed by him after he had completed the circuit of the Great Lakes with the Congressional Committee on Rivers and Harbors.

Congressman Burton, chairman of the House Committee on Rivers and Harbors, made the statement that the level of the lakes had fallen from three inches to a foot and a half. He did not necessarily attribute this shrinkage to the effect of the Chicago drainage canal. Chief Moore said: "I am not prepared to state officially what the effect of the Chicago drainage canal upon the lakes has been. Nevertheless, it is my opinion that the canal has had no effect upon the level of the lakes above Niagara Falls. If there is an effect, it will be found in a diminishment of the water going over Niagara Falls. No harbor will have to be deepened on account of the canal. An apparent alteration of level will be

due to other causes, I am convinced, than the drain of the canal. I will go further and say that even if the Niagara river were dammed, so that the four upper lakes had no overflow, I do not believe their level would be really affected.

"The lakes, I believe, are self-regulating. The body of water which the lakes contain could not be supplied by the water sheds draining into them. What great river or system of supply drains into the lakes? Think how contracted their area of watershed is! No, the lakes are fed through the geological strata. Water from very far-off regions comes to the lakes. Water that falls on opposite slopes, penetrating through the surface earth, is carried back by the strata and enters the lakes. When the pressure is removed more water bubbles up from these strata, and when the pressure is increased the inflow is proportionately checked. Consequently I believe the water supply of the lakes is automatic, and that their level is not determined either by the increased or diminished outflow from their surfaces."

ERIE CANALBOAT TRUST.

The latest marine phase in trusts is a combination of the owners of the Erie canalboats, to regulate the business in the canal. A movement has been started at Tonawanda to organize a stock company with a capital of \$1,000,000. Owners of 225 canalboats are interested in the scheme, it is said, and the plan is to ultimately get control of the entire fleet of 800 boats which use the artificial waterway. The plan is, of course, to fix freight rates, but inasmuch as the trunk railroads have a large influence in this matter, grain shippers do not fear anything extraordinary coming out of the combination.

The railroads in recent years have kept the canal rates down rather than the opposite. It is claimed by the promoters of the scheme that 150 boats have been enrolled, and a large amount of money pledged. The scheme is to have the company own all of the boats and issue shares of stock equal to their valuation. As the business must be conducted on small margins, there will be no watering of stock and expenses will be kept down to bed rock. The Tonawanda associated boat owners are said to be at the center of the movement.

THE FASTEST BIG WARSHIP.

With the exception of torpedo-boats and a few small pleasure craft, the American-built Russian cruiser Variag is to-day the fastest vessel afloat, having recently gone through a seven and a half hours' trial run at a speed of from 23.6 to 23.7 knots, or 27.14 to 27.25 miles an hour. The best hourly trans-Atlantic record, which now is held by the Hamburg-American Line steamship Deutschland, is 23 knots, or 26.45 miles, and this affords a very suggestive standard for comparison. We need go only a few years back to find a time when the large Atlantic racers, in point of regularly attainable speed, were far beyond anything that had ever been done in any navy, and their performances were considered practically beyond reach under the severe conditions of cramped space, light machinery weight, and others similarly restrictive to the designer. The United States triple-screw cruiser Minneapolis about six years ago developed slightly more than 23 knots during her contract trials, but, as in the cases of most naval vessels, it was not expected that this would be demanded hour after hour in a run of several days, and it was not until the succeeding year, 1895, that practical demonstration was given for the first time that a naval vessel could actually hold her own with one of the crack Atlantic liners. This was afforded by the United States cruiser Columbia in her phenomenal run from the Needles, near Southampton, to Sandy Hook Lightship, off the American shore, in a few minutes less than seven days, or, to be exact, in 6 days, 23 hours, and 49 minutes, the average speed for the whole trip being 18.54 knots, or 21.3 miles an hour. The Columbia at the time was practically racing against the steamer Augusta-Victoria, of the Hamburg-American Line. Making proper allowance for the difference in the length of the two routes, the Augusta-Victoria having sailed from Cherbourg, the same rate of speed was maintained by both ships. Since that time high-speed, long-distance runs of war vessels have been repeated so that the impression has at last been wiped out that modern warships were simply boxes full of delicate and complex machinery scarcely fitted for the hard knocks which they were really intended to withstand. But among all the swift cruisers and battleships, the Variag's 23.7 knots give her to-day first place. The Variag, by the way, is the first American-built war vessel to have Niclausse water-tube boilers.—From Cassier's Magazine for September.

CHICAGO RIVER TUNNELS.

The Chicago Tribune says that immediate action towards lowering the Chicago river tunnels is to be urged on the city by the vessel interests through Congress and the Secretary of War. The questions involved in freeing the river channel from the obstructing tunnels and the disposition of the city to delay the improvement pending the results of suits against the street railway companies have been before the Committee on Rivers and Harbors of the House of Representatives by the Chicago River and Harbor Improvement Association. Capt. James S. Dunham, representing the association and the vessel interests, informed Congressman Theodore E. Burton, chairman of the committee, that the vesselmen had decided to appeal to the government to have the channel cleared. He argued that the city administration had inaugurated a policy of delay which is disastrous to the lake traffic. As indicating the readiness of the government to begin the work of lowering the channel to twenty-one feet, Major J. H. Willard, government engineer, announced that the work of dredging the river from Rush street to the outer harbor would begin soon. For this he will draw on the appropriation of \$90,000 set aside by Congress last winter. The purpose of the improvement association is to have the results of the congressional committee's investigation presented to the Secretary of War. By this means the vesselmen expect to develop some plan by which the government can urge the city to take prompt action toward lowering the tunnels.

COPPER MINING.

There is one point in favor of the Michigan copper mines which is important, observes Iron Ore. This is the mineralization of the lodes at as high a rate at the greatest depth yet reached as at points near surface. In mines of the West the copper ores often give out after they have been followed downward a few hundred feet; sometimes the ore changes to iron, and there is a considerable element of chance in the opening and equipping of property in that region. There are a few prominent mines of copper in the West which have given enormous outputs, but to secure this it has been necessary to mine out a vast area.

In the Michigan field the mines which were prominent twenty years ago are still active and all have been steadily adding to their yearly output of the yellow metal. Not a single property has been abandoned because of a lessening of the amount of copper held, in the veins or lodes. There may have been mines closed which never possessed enough metal to give the operator a profit, but in all of the great mines of Houghton county there have been no failures. In some of the mines further out on Keweenaw Point where copper was found in fissure veins, and which paid nicely for years, there was a pinching out of the veins, a narrowing to a limit which would not afford room for the metal.

NO SHIPS TO CARRY OUR COAL.

England is requiring more and more coal for her industries, and while that nation is continuing to export large quantities of domestic coal, it is, at the same time, taking more each year from the United States. Germany, Italy, France and Russia are also finding that it is to their interest to buy coal in the United States. The last six months have seen cargoes of American coal go to Russian ports that never before received a pound of our product. In England, its use is becoming much diversified. Recently a large shipment was made to London for the London & North-western railroad, heretofore supplied from English and Cardiff mines.

Just now, transactions for foreign account are limited, because of a scarcity of vessels suitable for long voyage cargoes. This scarcity has been particularly felt in Baltimore, and there seems to be no relief in sight. The French consul in Baltimore has advised French shipowners to send their vessels to Baltimore and pick up the cargoes for Europe that are going a-begging. That the advice will be taken is certain, unless British and German shipowners get ahead of them. They are not missing much, and what they do miss the French, Norwegians or other enterprising foreigners will get.

This is simply hitting our sore place from another angle. We need ships, ships, ships! And because we need them and can get them not, the rapidly growing coal trade with Europe is to receive a check. Or, if the trade does not suffer, and shipments are kept up, we must divide our profits with foreign shipowners. Do we need a merchant marine?—Baltimore Journal of Commerce.

THE MARINE RECORD.

THE SIZE OF PORT-HOLES.

A very considerable agitation has been aroused in some quarters—though chiefly, it must be confessed, amongst naval officers and landsmen who are not the greatest authorities on the conditions which govern the Atlantic trade—for the increase in the size of port-holes aboard passenger steamers in consequence of the terrible experience of those who were burnt aboard the *Saale*. Whilst this was proceeding it was curious to note a little story told by the *Shipping Gazette*. Before proceeding with the tale, we may, perhaps, be allowed to point out that it gives no names and no dates. It professes to hail from Dover, which, as far as we are aware, is neither a terminal port nor a place of call for ocean passenger steamers. It tells, however, of the loss of a baby, which was thrown through the port-hole of a state-room at sea by other children, members of the same family, because it made a noise. For what the tale is worth it would suggest, as it is laid before us, that instead of increase there should be decrease in the size of these apertures. Still, ships are not made for children alone, though in modern steamers very proper provision in the way of nurseries and other special accommodation for them has been made. If one could be permitted to make a suggestion, we would propose that the danger of a repetition of the baby incident might be entirely obviated if a few stout wire covers, made to fit the scuttles of the ship, were provided and carried. When the weather allowed the port-holes to be opened at sea, one of these wire guards might be screwed over each opening in the same way as the solid steel dead lights are shipped, and the possibility of anything falling or being thrown through the opening, would at once be obviated. Such a contrivance would, in fact, surely become a necessity if the larger ports demanded by the critics of the *Saale* ever come into fashion. But one fact must not be lost sight of. It is that the forms of possible disaster are infinite, and that circumstances seldom or never exactly repeat themselves. It may be many a long year—and let us hope that it may be so—ere a repetition of the New York fire or of the tragedy of the anonymous baby are repeated; and it is, therefore, very doubtful whether, on account of these incidents alone, it can be, by the most severe critics, held necessary to alter the general practice of shipbuilders and shipowners in this particular regard.—London Marine Engineer.

LIQUID FUEL.

Petroleum as a fuel for warships possesses many advantages over coal, says the *Oil City Derrick*, and is almost an ideal fuel for such purposes, but the difficulty of securing a supply in remote parts of the world constitutes a serious obstacle against its use. This, of course, might be overcome by the erection of tanks at all our present coaling stations, and keeping a big supply of oil always on hand. Tank steamers could carry the oil in bulk more readily than coal. Of course, there is also the danger from ignition to be considered and the fact that the oil would rapidly evaporate in tropical climates. Then unless carefully protected, a tank of oil on a warship would prove almost as dangerous in an engagement as a magazine of powder.

On the other hand, as pointed out by an exchange, the ability of petroleum to largely increase the fuel capacity of fighting ships, without changing their present dimensions or machinery equipments, lies in its greater heating power over coal per unit of weight and volume. Steam coal of the best grade develops approximately 14,000 heat-units per pound, on perfect combustion. The high grades of petroleums yield 21,000 units of heat per pound, when fully burned. With these two fuels in actual use under steam boilers, the result in the evaporation of water are more favorable to the petroleum than the figures just named indicate, because it is practicable to get more nearly perfect combustion of the oil than of the coal. In present ships, therefore, devoting the same tonnage to petroleum that is now devoted to coal, the fuel capacity with the former is more than 50 per cent. greater than with the latter. This increase of fuel capacity gives the ships with oil fuel one and one-half times the steaming radius at any speed, the ability to attain a greater maximum speed and to continue it for a longer period.

The Marine Engine & Machine Co., with its principal offices at Harrison, N. J., was incorporated at Trenton, N. J. recently. The objects of the new company are to build ships' launches, etc. The incorporators are: Miller F. Moore, John B. N. Shawell and Albert D. Miller. The new company is capitalized at \$500,000.

SHIPPING COAL TO ENGLAND.

More shipments of American coal to England will be made this week. One of the consignments will be made to the order of the British admiralty and will be sent by the Chesapeake and Ohio coal agency. Already this company has forwarded a supply to the admiralty. Never before have the naval authorities of England bought coal from this country. It is pointed out that as Europe has begun buying from this country, there were many reasons why she should continue doing so. In England there are only about three varieties of coal, while there are at least a hundred of varieties mined. Each of these varieties of coal requires more or less different handling at the hands of the stokers, and one of the causes why this country's product has not been particularly favored in Great Britain and in other countries is because the proper manner of using it had not been understood. This drawback is likely to vanish now.

Again, in the past America has shipped only its poorest coal to Europe to the detriment hitherto of a trade that now seems likely to reach enormous volume. So short-sighted a policy, however, will no longer be indulged in by the American miners.

SAILORS' SNUG HARBOR.

A reference in these columns two weeks ago to the interesting condition of affairs in the Sailors' Snug Harbor, has brought a letter from the interior of the institution which bears out the suggestion that funny things take place down there which the trustees neglect to give out to the newspapers. For example, in their bulletin to the newspapers in regard to Gov. Delehanty's retirement from active service in the navy, which meant his continuance as Governor of the Harbor, they did not say that they voted him \$1,000 to pay his expenses to Washington on business entirely for himself, the actual expenses of the trip being somewhere around fifteen dollars. One of the trustees wanted to make it \$1,500 but \$1,000 was finally accepted as a compromise amount. And Delehanty at the same time drawing \$5,000 a year from the Snug Harbor and half that amount from the Navy. This is merely a sample trick of the way the money flows around this private charity for the benefit of old merchant mariners. Where is Recorder Goff, whose position gives him the privilege of sitting with this board, that he does not set his stern visage against all this liberality with other people's money? There are also two ministers on the board who ought to do a little something occasionally to safeguard the treasury.—The Journalist.

NOTICE TO MARINERS.

UNITED STATES ENGINEER'S OFFICE, JONES BUILDING, }
DETROIT, MICH., August 25, 1900. }

The new chart Apostle Islands No. 1, in colors, scale 1:50000, is now on sale at this office. Price 30 cents a copy. By direction of Lieut. Col. G. J. Lydecker.

SIMON NEWTON, Chief Clerk.

LIGHT-HOUSE ESTABLISHMENT,
OFFICE OF THE LIGHT-HOUSE INSPECTOR, 11TH DISTRICT,
DETROIT, MICH., August 29, 1900.

LAKE SUPERIOR, SOUTH SHORE.

PORTAGE RIVER PIERHEAD LIGHT-STATION.—Notice is hereby given that on Aug. 28, 1900, a temporary fixed red lantern light (No. 322 1/2) was exhibited from a white mast recently erected on the pier 50 feet from its cutter end at the entrance to Portage River, from Keweenaw Bay, Lake Superior.

The focal plane of the light is 33 feet above mean lake level. The mast is erected over a white wooden lamp house 4ft. by 4ft. in plan.

The light will be maintained until the permanent tower is erected.

PORTAGE RANGE FRONT LIGHT.—Notice is hereby given that on August 28, 1900, a fixed white light of the fifth order was re-established in the white, square frame tower recently erected on the foundation crib on the west side of Portage river, Michigan, near its mouth.

The focal plane of the light is 20 feet above mean lake level.

This notice affects the List of Lights and Fog-Signals, Northern Lakes and Rivers, 1900, Page 66, No. 323 and the List of Beacons and Buoys, Northern Lakes and Rivers, 1900, Page 89.

By order of the Light-House Board:

J. C. WILSON.
Inspector 11th District. Commander, U. S. N.

DOMINION OF CANADA—ONTARIO.

GEORGIAN BAY AND NORTH CHANNEL PILOT.—A new edition of the *Georgian Bay and North Channel Pilot*, for use in connection with the sheet charts containing the results of the surveys of those waters by Staff-Commander J.

G. Boulton, R. N., and Mr. W. J. Stewart, corrected and revised to April, 1900, has just been published.

Copies of the Pilot can be obtained from the Department of Marine and Fisheries, Ottawa, from the Collector of Customs at the principal lake ports, and from the Admiralty chart agent, Charles Potter, 31 King Street East, Toronto.

BUOYS IN SOUTHAMPTON HARBOR, LAKE HURON.—The following spar buoys have been placed in Southampton harbor by Mr. W. J. Stewart of the Hydrographic Survey:

1. A red spar buoy is moored in 15 feet of water, close to the west side of a boulder, with 8 1/2 feet of water upon it. It bears S. W. 1/2 S. (S. 39° W.), 3,400 feet from the outer end of the railway pier or short pier on the east side of the harbor. It also bears S. by E. 1/4 E. (S. 20° E.), 2,600 feet from Chantry Island light-house.

As another boulder, with 11 feet upon it, lies W. by S. 800 feet from the red buoy, vessels drawing more than 10 feet should give this buoy a berth of only 100 yards, and lead up for the shed on the east breakwater in line with the outer end of the railway pier, bearing N. E. 1/4 N. Not more than 14 feet can be carried in by this entrance.

2. A black spar buoy is moored in 15 feet of water on the east side of a boulder with 9 feet of water upon it. It bears N. W. 1/4 W. (N. 47° W.) 775 feet from the west end of the railway pier and S. by W. (S. 11° W.) the same distance from the outer end of the east breakwater. Vessels passing through should keep close to the railway pier, haul up for the outer end of the east breakwater and round it at a distance of 50 yards to get the best water through North entrance to Southampton harbor.

As the line of range lights leads only 100 feet east of shoals with twelve feet of water upon them and over some with 13 feet of water, three-quarters of a mile outside the Chantry Island breakwater light, masters of vessels when one mile from the breakwater should take care to have the back range light open half a point to the eastward of the front light or bring the back range light over the west end of the east breakwater, bearing S. 3/8 E. (S. 4° E.) On this range, not less than 25 feet of water will be found until within 900 feet of the breakwater, when 17 feet is the least depth,

F. GOURDEAU,

Deputy Minister of Marine and Fisheries,
Department of Marine and Fisheries,
Ottawa, Canada, 20th August, 1900.

LETTERS AT DETROIT MARINE POST OFFICE.

September 1, 1900.

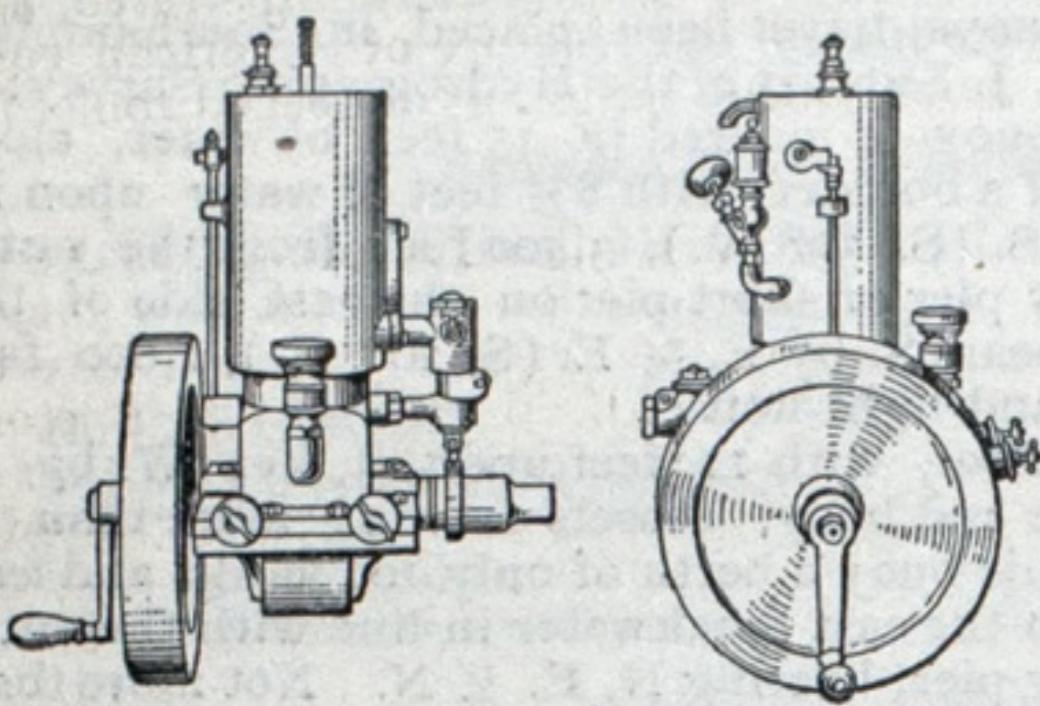
To get any of these letters, addressees or their authorized agents will apply at the general delivery window or write to the postmaster at Detroit, calling for "advertised" matter, giving the date of this list and paying one cent.

Advertised matter is previously held one week awaiting delivery. It is held two weeks before it goes to the Dead Letter Office at Washington, D. C.

Anderson, Frank O., Whit- Kenyon, G. R., Corliss.
Anderson, Oscar. [worth. Killett, Wm. D., Rappahan-
Allingham, John, Moravia. Kerslike, John. [nock.
Alger, M. S. Kirk, J. H., Bge 111.
Buchanan, Ollie, Ionia. Laffrey, John C.
Beebe, Fred. Learned, John E., Wilson.
Black, Wm. Labo, Albert.
Bolton, A. H. Mabb, Chancey, Nielson.
Bannan, Edward, Bangor. Marion, H. N., Bge 126.
Baker, Geo.-2, Nasmyth. Marion, H. N., Tokio.
Brown, A., Bge 132. Mackin, Will, Bunson.
Bradley, Marshall, Bge 118. Mickler, H. C., Thomas.
Byrnes, Capt. H., Smeaton. Miner, C. G. (dead), Doty
Bunting, Geo., Colgate. Majers, John. (sunk).
Burkhart, J. W., Fairbairn. Monzo, T. L., Linden.
Carson, Jas. H. Michelson, Dick.
Crossen, Peter-2, Krupp. Miller, Wm., Wilson.
Caldwell, Alex., Thomas. Millar, James, Bge 110.
Cartwright, Peter, Jenny. Murphy, Bern. F. Smeaton.
Crabld, Klant, Colgate. McKittrick, Jos. W.
Collins, Allen, " McRae, John, Bge 128.
Carr, John B.-2 McBride, J. A.
Cudney, Norris. McMann, Frank.
Cottrell, D. D., V. Swain. Nelson, Fremont, Bge 137.
Derfey, Mrs. S. A.-2 Bge 137 Nicholson, John, Law.
Dickinson, Wm.-2. Oberg, Chas. J.
Finkle, Burt, Eads. Patterson, A. E., Hackett.
Groundwater, D., Wilson. Potts, Chas. T., Bge 133.
Golden, James, Bge 133. Pullen, Chas. L.-2, Orton.
Griswold, S. R., Bunsen. Rance, Robert, Moonlight.
Green, Joe.-2, Hurlbut. Ratray, Geo.-3, Jenny.
Ganter, Frank, Continental. Rowland, Wm. A., Paris.
Gollogly, Jas., Presque Isle. Robinson, Bert, Crescent Cy.
Gutch, A. P., Penobscot. Sage, Harry T., Mather.
Hart, Charlie, Wilson. Seabrook, John, " " " " "
Herrick, D. M. Bge 133. Stegman, Albert, Langell,
Hinchey, Herbert, Smeaton. Strong, Geo. A., Jenney.
Hawkins, A. S., Mather. Simons, Wm. B., Wilson.
Herrmann, Gust-2, Colgate. Stennark, O., Whitworth.
Holin, Louis, Marian. Sym, Wm. H., Brightie.
Hannan, W. M., V. Swain. Smith, Joseph.
Holden, Bert, Gilchrist. Smith, Edward.
Hutton, Roy A. Smith, Walter, Van Hise.
Hilgendorf, Herman. Thompson, Arthur.
Huddle, W. R. Thodey, Wm., Pabst.
Harmon, Frank, Tower. Townsend, R. W.-2, Hoyt.
Harmon, F. A. Wetmore. Umphrey, R., Houghton.
Irvine, L. H. Virley, Fred.-2, Venezuela.
Johnson, J., America. Webber, Albert, Bge 118.
Kanter, Chas., Colgate. Wood, J. L., Thomas.

F. B. DICKERSON, Postmaster.

Truscott

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HIGH GRADE PLEASURE CRAFTTRUSCOTT BOAT MFG. CO.
ST. JOSEPH, MICH.

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COMPASS

THE LACK OF SAILORS.

Complaint is made by merchant marine captains that it is hard to get sailors in American cities. They say that the only people who are willing to ship are dull and ignorant fellows who loaf along the water front and spend too much of their shore time in the wretched little saloons that are always to be found where ships come in. When a good sailor is found he is a Norwegian or a German or a Dutchman—he is not an American. They say similar things in England. Over there when the lad feels the need of adventure, when he would see strange countries, he goes into the army, knowing that his nation can not keep out of war for more than two or three years at a time, and that he will have a chance to see quite a bit of the world before his term of enlistment expires. Possibly, that is to be the case with us, now that we have acquired the Philippines and other colonies, for there is no lack of applicants at the Army recruiting offices. Yet, while a plenty of able-bodied fellows are clamoring to be soldiers, the Navy Department is considering ways and means for persuading them into the sea service. This has not long been so. The sea was a region of romance for every lad of spirit half a century ago. Boys have even been known to run away from home in order to plow the raging main. Raging main sounded good to them; it suggested a lot of action—reefing topsails in a typhoon and all that sort of thing. Yet now the boys see little or nothing desirable in a sailor's life, and the Americans, as a class, have ceased to be men of the sea. One reason for this is that sea-goers on a majority of large ships are no longer sailors. A sailor is one who helps a ship to sail. How can a ship sail with never an inch of canvas, nor even a stick to hang it on? She is driven by engines, she is helpless if anything happens to her shaft or screw, her formast hands do not know as much about rags and rigging as some of the boys who read Oliver Optic and raise potatoes in Iowa. What is the romance of a life that is devoted to scouring brass and holy-stoning decks and scrubbing paint and painting funnels and passing coal and breaking cargo and stowing stores and helping the cook? So far as the merchant service is concerned, the practice of hiring the cheapest men has probably done more than anything else to run it down. Cheap men can be cheaply treated and cheaply fed. Among a gang of Lascars, Portuguese and escaping bad folk from all countries how is it expected that there shall be pride of ship, or ambition, or patriotism, or willing service? These men are treated like convicts, in too many cases, they fall into the hands of shyster lawyers and are doubly injured when they seek redress. Hence they seldom seek it, they are fed on stuff that would not be sold to any laborer in a tenement, no thought is given to their cleanliness or comfort, no provision made for them in case of injury or illness. Is it any wonder that American boys refuse to join a crew that has not even a little of the devil in its make-up, but is merely a dull, ignorant, plodding lot that the captain and mates are almost justified in kicking and rope's-ending

about its work? Yet, the very fact that so many of the crew are men of whom it is hopeless to expect that they can ever rise to positions as officers, should be an incitement to boys of good physique and an adventurous turn to ship before the mast, learn the business, follow it with study on some of our training ships, and get themselves elected to the command of some of the vessels that ply between our ports and the rest of the world. In such a life there are freedom, interest and a moderate possibility of gain. It is a thousand times better than a life in a shop or factory, or a life devoted to the pushing of a street car. When the right inducements are offered and when in its ineffable wisdom Congress does something to restore a merchant marine to the United States, it is not impossible that the American boy will again agree to be a sailor.—Brooklyn Eagle.

THE MOST ECONOMICAL TEMPERATURE OF
FEED WATER.

Every steam engine and every regimen of steam has its own peculiar temperature of feed-water which gives the maximum economy of fuel, and which can only be experimentally ascertained. No experiments have been made to determine, in given different cases, this temperature. Probably it admits of wide variation without affecting the fuel economy, the gains sensibly equilibrating the resulting losses. The higher the feed-water temperature, the less tube surface is required in the condenser; but, then, the higher the feed-water temperature, the larger must be the capacity of the cylinder for developing equal powers, other things equal, owing to the increased back pressure against the piston with higher temperature of the condenser. The higher temperature of the feed-water increases the economic vaporisation by the boiler in a higher degree than is due numerically, to the increased temperature of that water, because the heating surface of the boiler having, in equal time, to transmit less heat, will, necessarily, utilize more of the heat in the gases of combustion than it would do with feed-water of lower temperature.

Further, with the same engine, for the production of a given power with equal reciprocating speed of piston, the boiler pressure must be carried higher, the higher the back pressure against the piston, and there is a distinct and measurable economic gain due to the greater dynamic effect of a given weight of steam of higher pressure over the same weight of steam of lower pressure, after allowing for the greater total heat of the former.—Chief Engineer B. F. Isherwood in Cassier's Magazine for September.

THE largest raft ever towed down the Mississippi river left Stillwater, Minn., July 25, for St. Louis, Mo. It is 256 feet wide, 768 feet long and contains 9,000,000 feet of lumber besides a deckload of 60 carloads of shingles and lath. Knapp, Stout & Co. are the owners and shippers.

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REPORTED BY THE LOOKOUT.

IT is said that 95,000 cabin passengers have crossed the Atlantic to Europe this year. Assuming that the average expenditure of this class of travelers on the other side is \$300—and it is probably more—this means nearly \$30,000,000 paid to the foreigner.

THE Bethlehem Steel Co., South Bethlehem, Pa., has discontinued its office at 502 North Second street, St. Louis, and the territory hitherto covered by it will be handled direct from the Chicago office, such being found as the best means of facilitating their business.

By the death of Collis P. Huntington the United States loses one of its most prominent and energetic citizens. Mr. Huntington, with a few associates, of whom he was the leading spirit, built the Central Pacific railroad, the last link of the first through line from the Atlantic to the Pacific ocean, thus opening hundreds of thousands of square miles to civilization and for commercial and industrial enterprises. By this achievement he has probably done more than any living man towards the actual development of this country. In his later years by his connection with several of the largest railroads, steamship lines, shipbuilding plants, etc., he followed in the footsteps of his first gigantic work.—New York Maritime Register.

THE Deutschland has achieved a double "record" on her maiden voyage. The big Hamburg-American liner, which arrived at Plymouth on the 24th ult. from New York, has broken the record, both outwards and homewards. The Deutschland sailed from Plymouth for New York on July 6, and accomplished the trip across the Atlantic in 5 days, 15 hours, 46 minutes, an average speed of 22.42 knots being maintained throughout the distance of 3,044 nautical miles. This eclipsed all previous records. On the return journey the vessel steamed at an average speed of 23 knots. Although she traveled 41 miles further than on the outward journey, she reached Plymouth within 5 days, 14 hours, 6 minutes of leaving New York.

THE Chesapeake and Ohio Railway will shortly begin to make large shipments of its New River steam coal to Egypt, for use by the Egyptian State railways. These will not be the first shipments of coal from Newport News to Egypt, as cargoes have been frequently sent to Alexandria, and it was the satisfaction given by this coal that influenced the Egyptian State Railways to send Frank Curtis Morgan, its inspector of stores, to Virginia to contract with the Chesapeake and Ohio for an immense quantity of the fuel. He has visited the New River coal regions, and will in a few days come here to inspect the work of loading coal at the Chesapeake and Ohio piers. He will return to Egypt after several weeks. Mr. Morgan says that at the same price the New River coal is equally acceptable with the Welsh coals. It is a fact that coal can be sent from Newport News across the ocean and through the Mediterranean to Alexandria as cheaply as the Welsh coal can be sent there.

TREASURY DECISIONS RELATING TO THE U. S. MERCANTILE MARINE.

Relative to furnishing copies of records of office of steamboat inspectors.

TREASURY DEPARTMENT,
STEAMBOAT INSPECTION SERVICE,
WASHINGTON, D. C., August 11, 1900.
TOWING STEAMERS.

Transportation of other than crew and other persons necessary for the actual business of the vessel under special permit of supervising inspector renders towing steamers liable to penalty of \$500 under sections 4499 and 4500, Revised Statutes.

TREASURY DEPARTMENT, August 11, 1900.
SIR: The department is in receipt of your letter of the 26th ultimo, referring to a complaint having been made before you against the towing steamer New Brunswick, belonging to the Gulf and Interstate Railway, for carrying persons other than the crew of the vessel, and those authorized by the special permit of the supervising inspector of the district, namely, 15 persons necessary "to carry on the legitimate business of such towing steamer," authorized by the act of Congress approved July 26, 1886.

You report in substance that the other persons alleged to be carried by the steamer New Brunswick are workmen, traveling backward and forward between Point Bolivar and Galveston, and you ask if it is possible for a permit to be granted the company to carry the persons referred to on the above-named towing steamer, they never being carried for hire.

In reply, you are informed that it is a violation of law, subject to the penalties prescribed in sections 4499 and 4500, Revised Statutes, for a towing steamer to carry persons other than the crew, and such number of persons as the supervising inspector may allow by special permit for the necessary business of the steamer, and that if the Gulf and Interstate Railroad Company desire to use the steamer for the purpose of transporting their employees to and from their works at Galveston it will be necessary to have the steamer inspected and certified as a passenger steamer, notwithstanding such employees are transported free of charge.

Respectfully,
F. A. VANDERLIP, Assistant Secretary.
COLLECTOR OF CUSTOMS, Galveston, Tex.

TRANSCRIPT OF EVIDENCE.

Department declines to furnish transcript of evidence taken in cases of investigation before local inspectors, suspending or revoking marine licenses.

TREASURY DEPARTMENT, August 20, 1900.

SIR: This Department is in receipt of your letter of the 15th instant, asking that the local inspectors of St. Louis be directed to give you a transcript of the evidence taken before them on the 22d day of July, ultimo, in the case of T. B. Sims, master steamer Hill City, v. Pilots Trimble Waddington and M. J. Gibbons, and inclosing an affidavit indicating a personal material interest in the copies of papers asked for, and that the purpose of your request "is to have the evidence and finding of said local board reviewed, for the purpose of appeal if feasible."

In reply, you are informed that, under section 4452, Revised Statutes, "any person deeming himself wronged" by the action of a local board of inspectors in suspending his license as "master, mate, engineer or pilot, * * * may within thirty" days thereof, on application to the supervising inspector of the district, have his case examined anew by said supervising inspector; and the local board shall furnish to "the supervising inspector in writing, the reasons for its doings in the premises; and such supervising inspector shall examine the case anew, and he shall have the same powers to summon witnesses and compel their attendance,

and administer oaths that are conferred on local inspectors." * * *

It is assumed by the Department that you have already been advised in writing by the local board of inspectors of their finding in the case referred to by you, and the law above quoted points out your remedy if wronged thereby, when, if appeal is made by you as provided therein, it will be the duty of the supervising inspector under the rules of the Board of Supervising Inspectors, Rule III, "Appeal to supervising inspectors," page 79, rules and regulations,

(1) The supervising inspector, upon notice of an appeal from the decision of the local board, provided said notice of appeal shall be made within thirty days from the date of the decision of the local board, shall give notice in writing to said local board to forward a certified copy of their decision, together with the charge and all evidence in writing on file in their office.

(2) The supervising inspector shall then proceed to investigate the case under the same rules prescribed for the trial of the accused by the local board.

(3) The testimony taken before the local board may be considered by the supervising inspector, for the purpose of determining whether the finding of the local board is justified by the evidence, and he shall have power to remand the same for explanation or correction, but not for a new trial; but the testimony taken before the local board, except for the purpose of impeaching a witness, can not be read in evidence in the trial of the case before the supervising inspector except by consent.

In view of the fact that the evidence in the case that you ask for will be in the hands of the supervising inspector whilst hearing the case on appeal, and may be used for the purpose of impeaching the testimony of witnesses, or read in evidence by your consent, it seems to this Department that all the objects sought in your request to the Department may be obtained by your appealing from the decision of the local inspectors in your case.

In conclusion you are informed that it never has been the practice of the Department to direct or authorize local or supervising inspectors to furnish to persons whose licenses have been suspended by them, copies of the evidence upon which the inspectors have based their decisions, for the purpose of such persons reviewing the same, nor does it feel inclined to establish a precedent to the contrary by doing so in the present case. If for any reason, however, the case should be taken to the courts, such evidence will be produced on the order of the court as provided for in Department circular, synopsis No. 148, dated September 27, 1898, referred to in your affidavit in this case.

Respectfully,
H. A. TAYLOR, Assistant Secretary.
Capt. M. J. Gibbons, St. Louis, Mo.

LITERARY AND BOOK NOTICES.

John R. Spears contributes an interesting story entitled "Wreck of the Brigantine Ringer," to the August number of *The Cosmopolitan*.

John R. Spears will continue his account of "The Slave Trade in America," in the September *Scribner's* with a description of the life of terror aboard a slaver in the days of that iniquitous business.

Rand, McNally & Co., of Chicago, have issued an up-to-date atlas of China. It contains maps and descriptive matter pertaining to general conditions and the present crises in the celestial empire, and a concise review of its history, government, religion, people, industries and relation to other powers.

Cassier's Magazine of Illustrated Engineering has in its list of September articles five which are particularly noteworthy contributions to engineering literature. One of these

is devoted to "American Ore Dock Machinery," by Arthur C. Johnson, in which a comprehensive account is given of the remarkable equipments for handling bulk cargoes of coal and iron which have been developed on the great American lakes. The article is profusely illustrated, and affords an admirable idea of one feature of American commercial methods; namely, the building of special tools for special work.

"The Occasional Poems of Rudyard Kipling" make up the second number of the Cornhill Booklet, the new magazine of reprints of rare and inaccessible literary material which is being issued by Mr. Alfred Bartlett of Boston. Very few of the poems have been included in any edition of Mr. Kipling's works. There are poems to Lord Roberts, Julia Marlowe, James Whitcomb Riley, Captain Robley D. Evans, G. W. Steevens, to Queen Victoria's fiftieth Jubilee as well as the Recessional of the sixtieth Jubilee, to the Kipling Club at Yale, and to many other persons and events that have appealed to Mr. Kipling's muse. This is probably the largest collection of these stray poems that has as yet been made, and it is certain to be of the widest interest. There is an excellent portrait of Mr. Kipling from the etching by Strang, on Japan paper, and a fac-simile of a letter from Mr. Kipling, explaining the meaning of a line in his poem on Lord Roberts.

The London correspondent of the New York Sun reports that the Intelligence Department of the British War Office has been engaged for several months investigating the preparedness for war of Canada and the Australasian colonies. The investigation is understood to have been completed so far as the latter are concerned, and a scheme of defence is being prepared which will form the basis upon which the government of the federated colonies will work. The dominant idea of this scheme is the constitution from various military odds and ends in the present colonies of one homogeneous colonial army, recruited voluntarily, but with power reserved of enforcing a modified form of conscription known as the militia ballot. The integral part of the Canadian scheme is the obtaining of safe and easy access for ships of war to the Great Lakes. Some such route is said to have been found, and the House of Commons will be asked at the next session to vote money toward the cost of the works.

The Western World was a famous early day steamboat of the Great Lakes, one of the fastest that ever ran on these waters, having a superior model and large power. Her fastest time from Detroit to Buffalo was 14 hours. The steamers of the Great Lakes have ever been noted for their size, their speed, their fine fittings, their general adaptability for the purpose intended. The sumptuous book, "American Steam Vessels," by Samuel Ward Stanton, describes and fully illustrates over 50 of them, and the balance of the book embraces pictures and descriptions of all types, from those of the early days of the century to the present. A most original and instructive volume which cannot fail to be of profound interest to all patriotic Americans. * * * Unlike most works of this kind, the text, though clear and to the point, is subordinate to the illustrations. There are nearly 300 accurate reproductions of American steam vessels, from the Clermont down to the last great ocean liner launched from a native shipyard. The distinctive types of steam-propelled boats which are used on our great inland lakes and rivers, on the Pacific coast, on the Hudson, and our Atlantic coasters and liners, are all represented. The evolution of the steamboat and the wonderful progress made in recent years can easily be seen, and an amount of practical information can be gained in half an hour by a scrutiny of these illustrations which could not be acquired by months of reading. Many of the illustrations are taken from pictures on exhibition at the World's Fair, and the book, without doubt, will meet with much favor—Press, New York.

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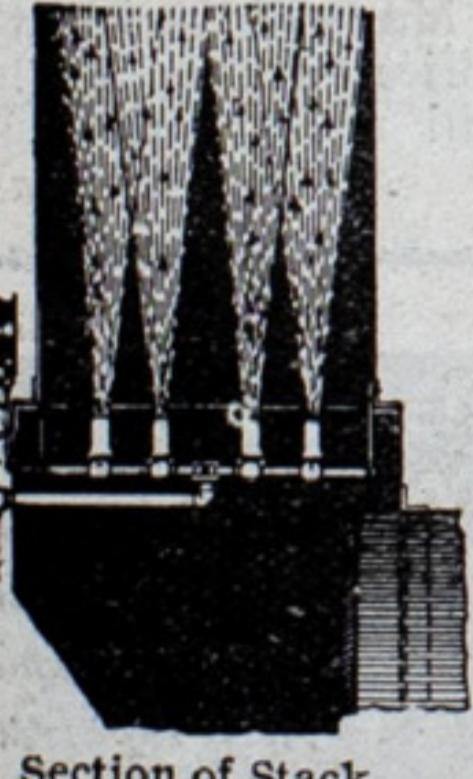
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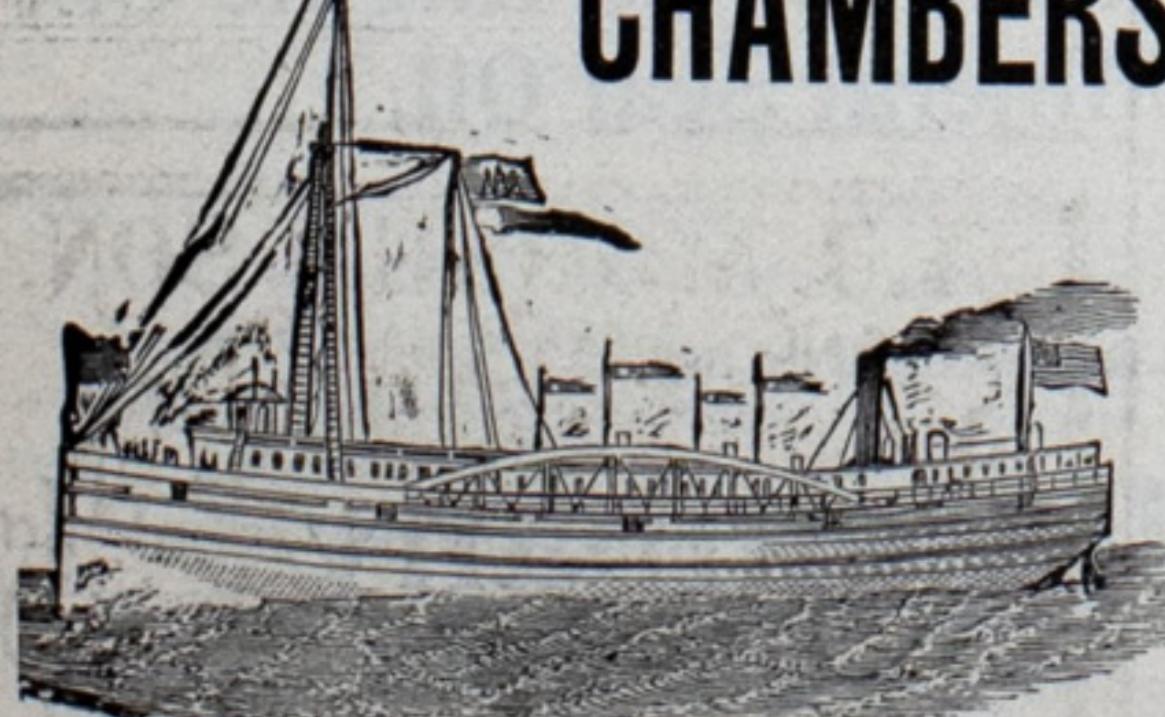
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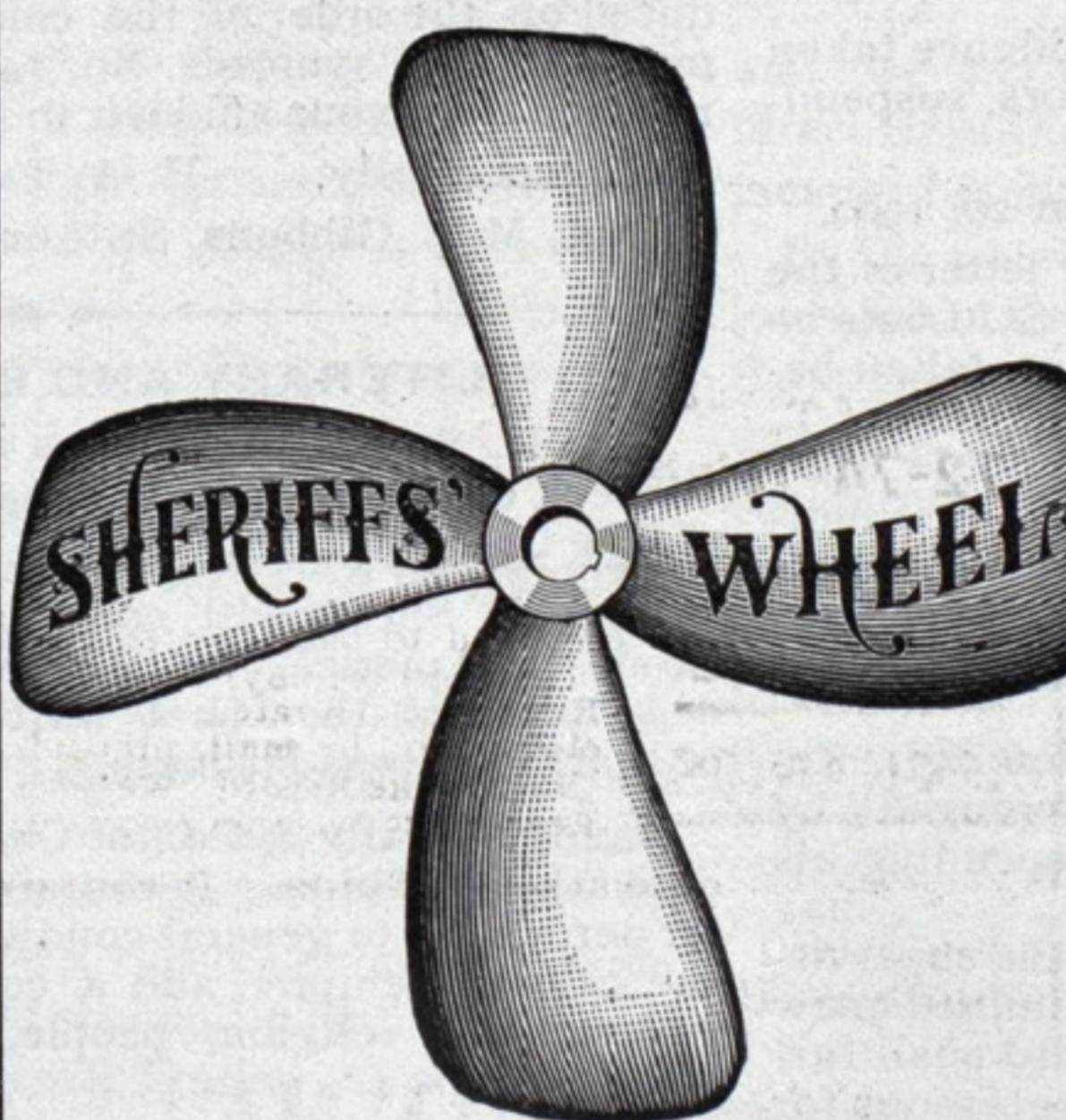
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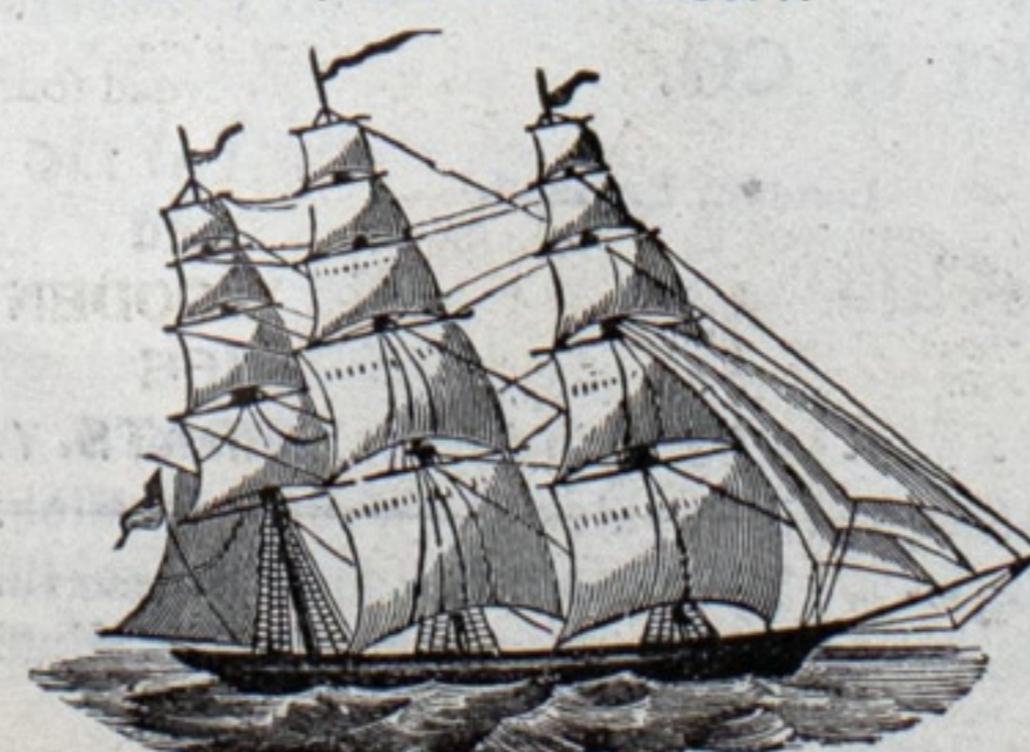
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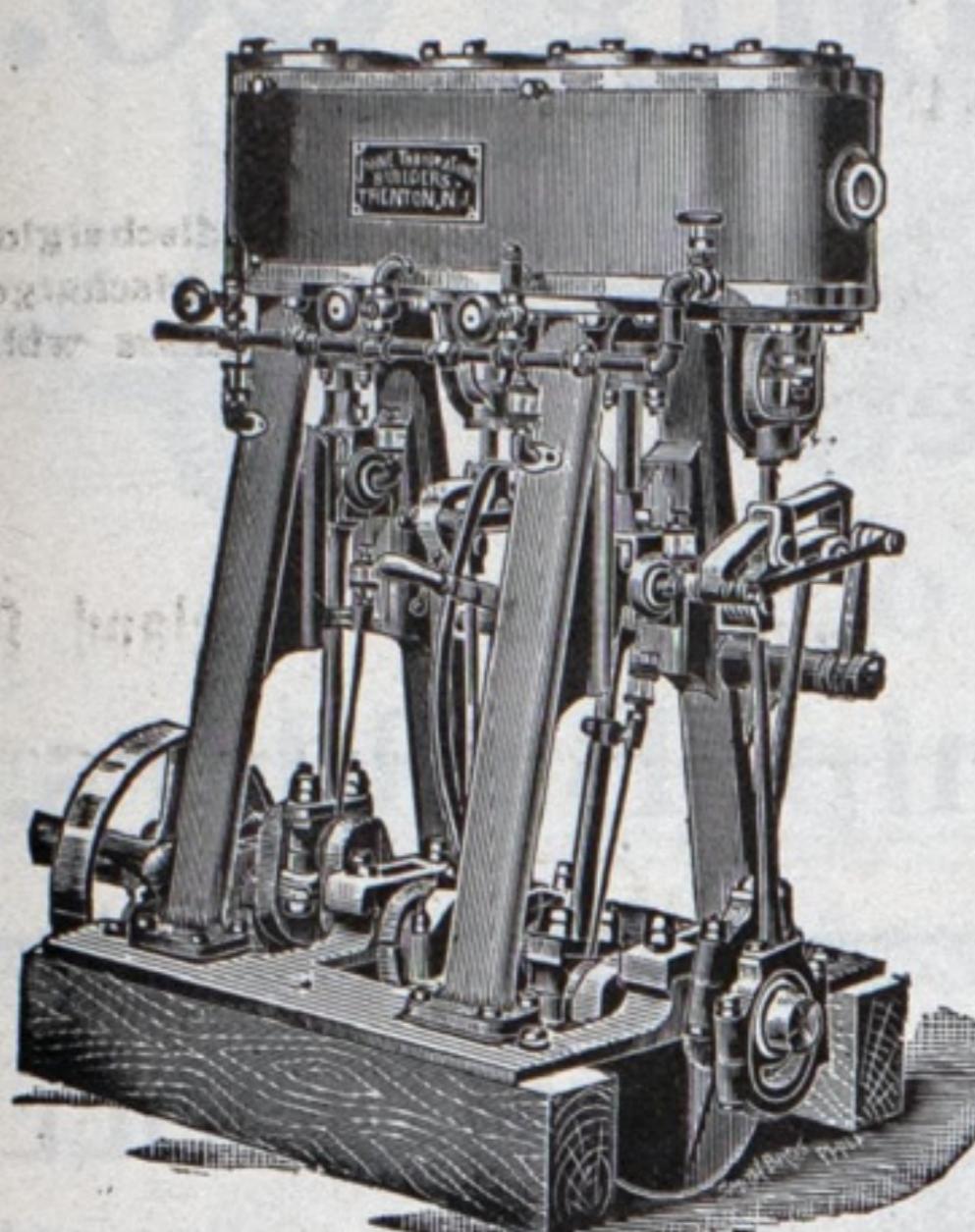
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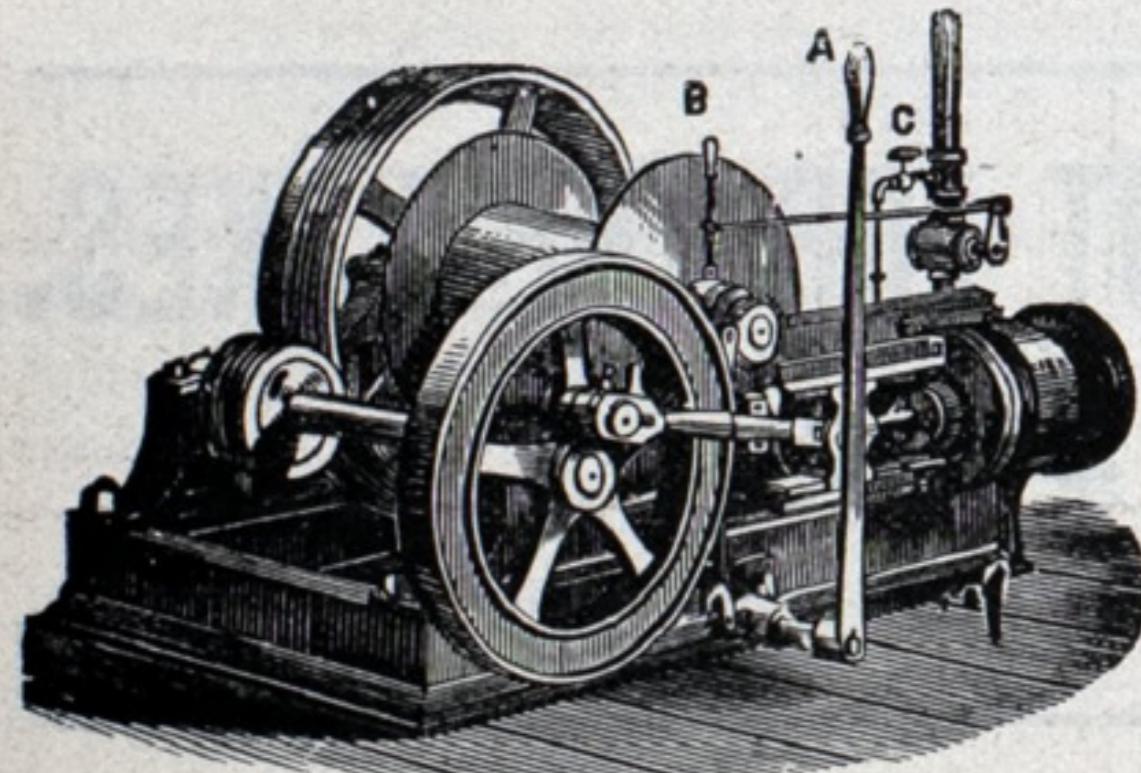
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ceived here until 2 p. m., September 20, 1900,
and then publicly opened. Information fur-
nished on application. WM. H. BIXBY,
Maj., Engrs.

U. S. ENGINEER OFFICE, Pittsburg, Pa.,
August 16, 1900. Sealed proposals for com-
pleting two locks and dams and building
four locks and dams on Monongahela river
above Morgantown, will be received here
until 12 M., September 15, 1900, and then
publicly opened. Plans may be seen here.
Information furnished on application. C. F.
POWELL, Maj., Engrs.

34-37

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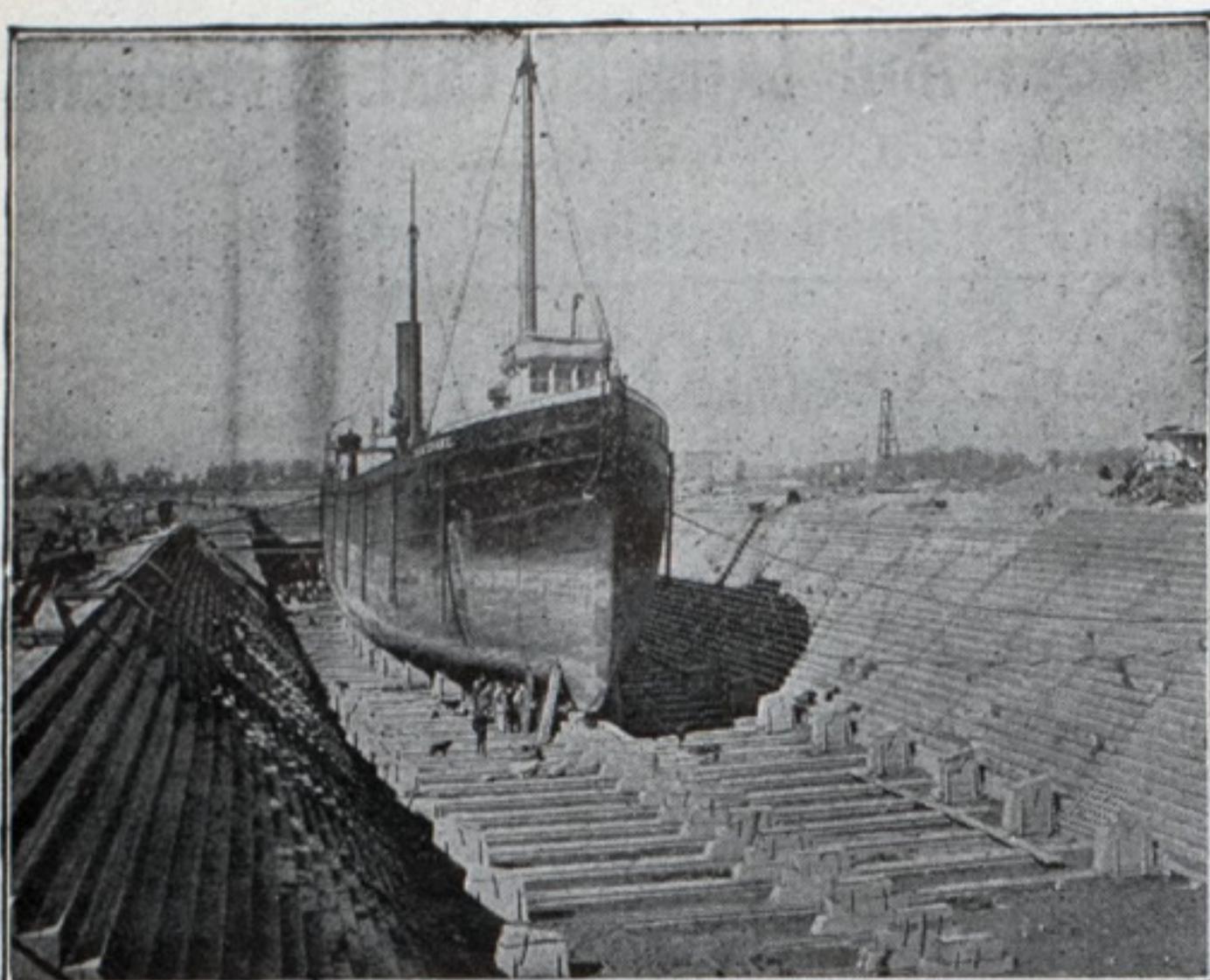
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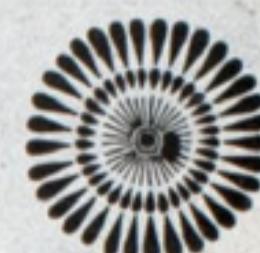
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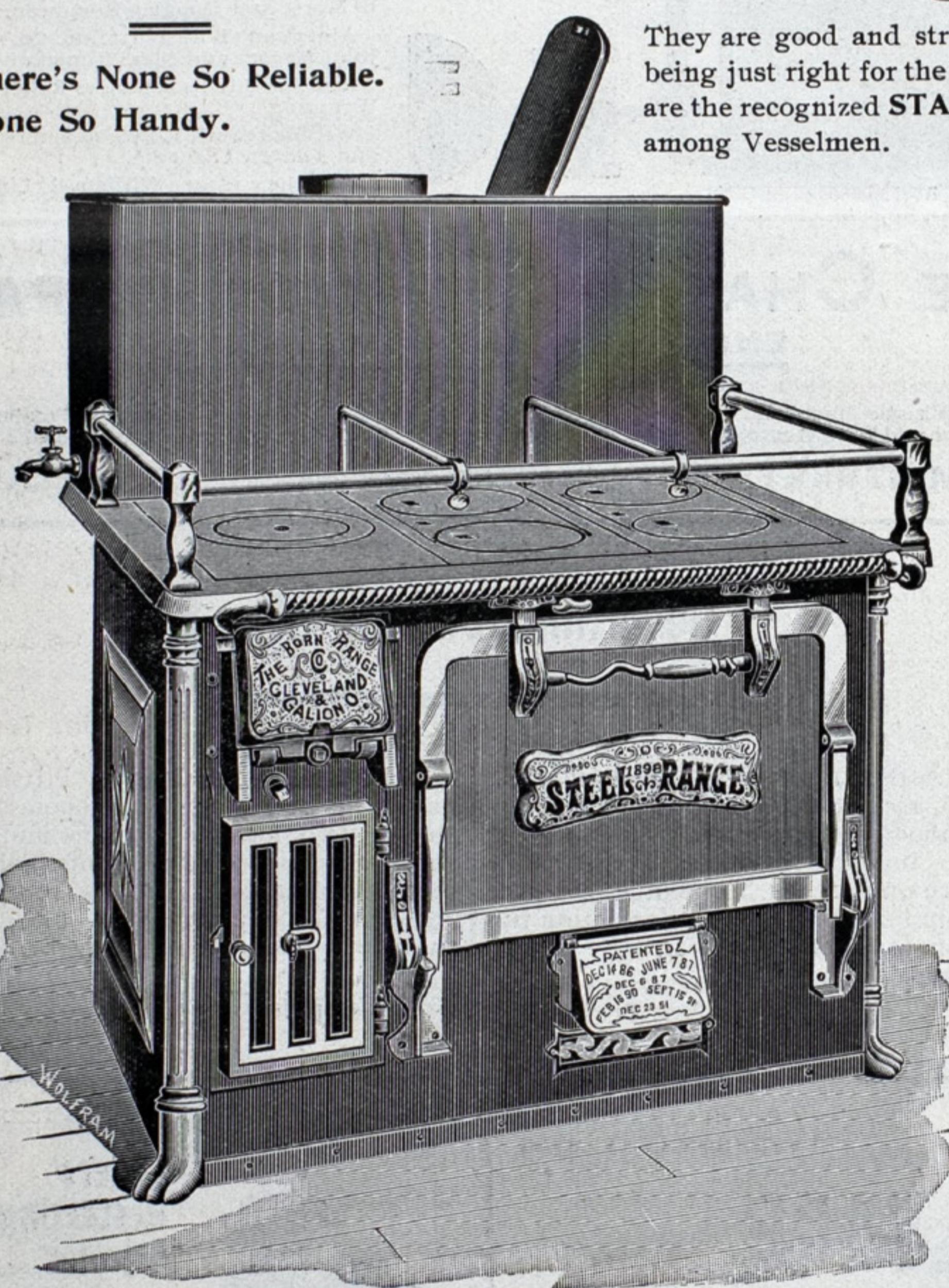
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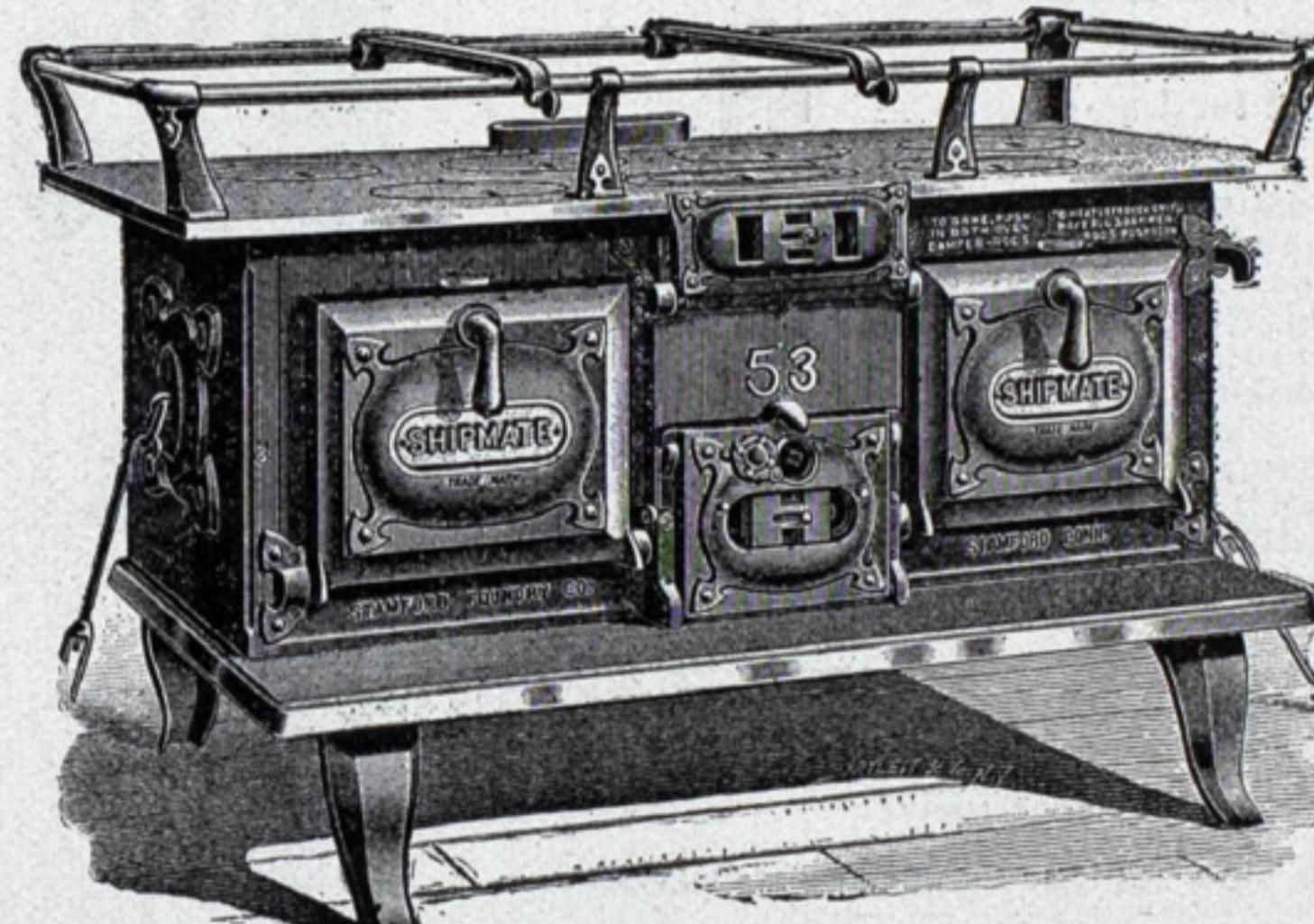
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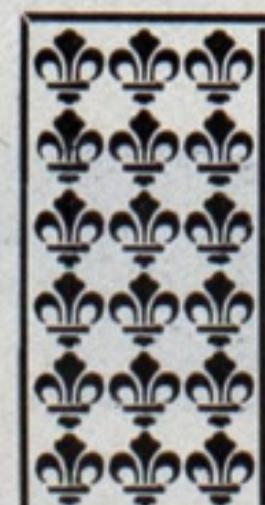
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